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4-D | NEUROIMAGING

ANNUAL REPORT

# OFFICER'S MESSAGE

4-D | NEUROIMAGING

**F**iscal 2003 saw many changes for 4-D Neuroimaging. Following the issuance of three CPT codes for MEG clinical procedures by the American Medical Association (AMA), the Center for Medicare and Medicaid Services (CMS) finally established realistic, and commercially feasible, reimbursement rates for MEG in November of 2002. These rates became effective on January 1, 2003.

With these rates in place, we expanded our programs to educate the medical market and the financial institutions that support that market, about the clinical and economic value of MEG. This process has yielded a strongly increasing level of interest by serious prospective customers. This pace of activity, while not producing an increase in clinical system sales this past year, promises to do so in the ensuing years. Our results for the year reflect our continued current dependence on the research market for our revenue. Without any significant clinical sales, 4-D experienced another year of substantial losses and cash consumption, as did the rest of the industry. As a result of our financial performance in 2002 and our continued losses, we were forced to take a large number of major cost reduction measures. One of those measures was the divestment of our Finnish subsidiary, 4-D Neuroimaging Oy.

With this restructuring we have focused on the U.S. clinical market during fiscal 2003. In November of 2003, the CMS further increased the reimbursement rates for MEG procedures thereby providing additional economic incentive for the adoption of MEG as a clinical modality. We believe that our education and marketing efforts, combined with growing clinical and economic acceptance of MEG, will accelerate the rate of adoption of MEG in 2004.

We thank you for your support and patience and look forward to a successful 2004.

Sincerely,



D.Scott Buchanan  
President & CEO

D. Scott Buchanan



Eugene C. Hirschhoff  
V.P., Engineering

Eugene C. Hirschhoff



Kenneth C. Squires  
V.P., Marketing

Kenneth C. Squires

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC, 20549

FORM 10-KSB

(Mark One)

☒ ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended September 30, 2003

☐ TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 0-19632

**4-D NEUROIMAGING**

(Exact name of registrant as specified in its charter)

California 95-2647755  
(State or other jurisdiction of incorporation or organization) (IRS Employer Identification Number)

9727 Pacific Heights Boulevard, San Diego, California 92121-3719  
(Address of principal executive offices) (zip code)

Issuer's telephone number, (858) 453-6300

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
_____	_____
_____	_____

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, No Par Value Per Share  
(Title of class)

Check whether the issuer: (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ No

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B is not contained in this form, and no disclosure will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB or any amendment to this Form 10-KSB. ☐

The issuer's revenues for the fiscal year ended September 30, 2003 were \$2,808,000.

The aggregate market value of the voting stock held by non-affiliates of the issuer's common stock as of November 6, 2003 as reported on the Nasdaq Over the Counter Bulletin Board was approximately \$944,000. Shares of common stock held by each officer, director and holder of 10% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of shares outstanding of the registrant's common stock, no par value, as of November 6, 2003 was 221,859,748 shares.

## DOCUMENTS INCORPORATED BY REFERENCE

Certain exhibits filed with the registrant's prior filings, as listed below, are incorporated by reference into Part III of this Form 10-KSB:

- Registration Statement on Form S-1 (33-29095 and 33-81294)
- Schedule 14A as filed with the Commission on January 18, 2002
- Form 10-K for the fiscal years ended September 30, 1992, September 30, 1998, December 30, 2000, December 30, 2001 and December 30, 2002
- Form 10-Q for each of the quarters ended June 30, 2000 and March 31, 2002
- Form 10-QSB for each of the quarters ended December 31, 2002 and March 31, 2003
- Form 8-K as filed with the Commission on May 11, 2001 and October 18, 2002
- Form 8-K/A as filed with the Commission on June 20, 2001

Transitional Small Business Disclosure Format (check one): Yes ☐ No ☒

4-D NEUROIMAGING

FORM 10-KSB

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2003

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## PART I

This annual report on Form 10-KSB may contain forward-looking statements that involve risks and uncertainties. Actual results could differ materially from any forward-looking statements and from past performance as a result of such risks and uncertainties. See the "Factors That May Affect Future Results" section of this report.

### ITEM 1. BUSINESS.

#### Company Overview

4-D Neuroimaging, (formerly Biomagnetic Technologies, Inc.), or 4-D, a California corporation originally founded in 1970 to produce equipment for physics labs, currently develops, produces, markets and sells medical instrumentation that allows physicians to monitor how the body is functioning, and provides an important tool to neuroscientists, helping them to unravel how the brain functions. The basic technology is referred to as Magnetoencephalography, or MEG (sometimes Magnetic Source Imaging or MSI). MEG systems measure and locate magnetic fields generated by the human body, and assist in the noninvasive diagnosis of a potentially broad range of medical disorders. These measurements provide useful information about the normal and abnormal functioning of the brain, heart, spine and other organs. Currently, we are focusing our efforts on MEG applications for the brain.

MEG systems use advanced superconducting technology to noninvasively detect and characterize naturally occurring magnetic fields that are one billion times smaller than the earth's magnetic field. This capability is used to measure the magnetic fields, from the brain or body thousands of times a second. Physicians are employing this ability to aid in the evaluation and planning for surgical treatment of epilepsy, or Epilepsy, and the identification of important functional areas of the brain (e.g. motor and language-related cortex) that can be at risk during neurological surgery for tumors and other brain lesions, also referred to as pre-surgical functional mapping, or PSFM. The neuroscience research community is employing MEG to help them unravel the functional complexity of the brain.

A major step was taken in 2001 in the commercialization of MEG. The American Medical Association, or AMA, issued Current Procedural Terminology, or CPT, codes for both Epilepsy and PSFM using MEG. While Epilepsy and PSFM may be relatively small markets in and of themselves, the issuance of CPT codes for these uses of MEG represent a major step forward in the market development of MEG. They form the foundation for other applications currently in development. A further step was taken in November 2002 when the Center for Medicare and Medicaid Services, or CMS, issued their recommended reimbursement levels for the use of MEG in Epilepsy and PSFM. The level of reimbursement established can provide an economic basis for the purchase and use of MEG systems. These reimbursement levels became effective January 1, 2003. In November 2003, CMS again increased the levels for reimbursement of MEG. These new, higher levels become effective January 1, 2004.

The Company and certain of our customers are continuing to investigate the value of the technology for the diagnosis of other disorders of the brain, such as dyslexia, stroke, mild head trauma, schizophrenia, depression and other neuropsychiatric disorders, as well as for problems of the heart, spine, and gastrointestinal system.

MEG differs significantly from other anatomical and functional imaging methods. Traditional medical imaging technologies such as X-ray, magnetic resonance imaging, or MRI, and computed tomography, or CT, provide valuable anatomical detail but no direct functional information. Functional imaging methods such as electroencephalography or EEG, positron emission tomography or PET, single photon emission tomography or SPECT, and functional MRI or fMRI, have limited spatial or temporal resolution, or require invasive procedures, such as the injection of radioactive isotopes or surgical placement of electrodes into the brain, to locate normally or abnormally functioning areas of the brain. We believe that MEG is currently the only method that can noninvasively characterize the normal and abnormal function of the brain with the high temporal and spatial resolution necessary to be clinically useful in a potentially wide range of applications. A MEG system, when used in conjunction with CT and MRI images, provides the clinician with information that links anatomy with function to provide a more complete

picture of the patient's condition without the use of radioactive isotopes or invasive procedures, the majority of which are inherently costly.

#### Product and Market Development

After developing our core technology for the scientific research market for physics we looked to expand our markets with other applications. We determined that the market for the use of MEG systems in the diagnosis of neurological and neuropsychiatric disorders might be very large. Since focusing on this market, we have pursued both technical and market development strategies intended to create a commercial clinical market for MEG. We have developed and released a series of products leading up to the product line we are currently offering. The current main product line consists of two whole-head systems - the Magnes® 2500 WH, the Magnes 3600 WH - and the Magnes 1300C, a system designed for non-brain measurements including fetal, cardiac, spinal and gastrointestinal studies. All of the products are available through common distribution channels throughout the world. As part of our ongoing commitment to the research market, any of these systems can be customized for the specific needs of a given research project. We market the Magnes 2500WH as our principle clinical system, while the Magnes 3600 WH is primarily marketed to the research market.

As part of our market development strategy, we have targeted the evaluation of patients with Epilepsy, and the pre-surgical functional mapping of patients who are candidates for surgery that would endanger important functional areas of the brain, as near-term clinical applications for MEG. With the issuance by the AMA of CPT codes for these indications in 2001, the issuance by CMS of reimbursement levels for these applications in 2002 and their subsequent increase in 2003, MEG has taken significant steps forward in its commercialization.

In the U.S. alone there are over 100 tertiary care epilepsy centers that we have identified and believe could benefit from the use of MEG technology. We are currently directing our marketing and sales efforts towards these centers as potential customers for MEG systems in the U.S. These centers are typically affiliated with academic medical institutions with large neurosurgical programs that would also benefit from the PSFM application. In addition, we believe there are an equivalent number of Epilepsy/PSFM centers with similar needs throughout the rest of the world. In addition to direct sales channels we are pursuing possible alliances or other distribution relationships that could expand our access to the commercial market, which is expected to emerge following the issuance of CPT codes and the establishment of reimbursement levels.

Currently, we are aware of at least 5 centers in the U.S. using and receiving reimbursement for MEG on a routine basis for these indications: University of California, San Francisco, the University of Texas, Houston, Texas, Henry Ford Hospital in Detroit, Michigan, Scripps Research Institute in San Diego, California, and University of Alabama, Birmingham.

#### MEG Technology

MEG is based on fundamental properties of electromagnetism. Electrical currents produce magnetic fields that are perpendicular to the flow of current; these fields can be detected by our technology. A MEG instrument detects the magnetic fields produced by intracellular electrical activity that are associated with many of the body's most critical functions. Unlike electrical potentials generated by the body, upon which EEG and the electrocardiogram, or ECG, are based, the corresponding magnetic fields pass through surrounding body tissue undistorted, without obscuring the location of the source. MEG can non-invasively provide information about the timing and the location of the origin of normal and abnormal functional activity, by measuring and analyzing these magnetic fields. MEG can do this with a combination of millimeter spatial resolution and millisecond time resolution that has not been previously available without the use of surgically implanted electrodes, introducing radioactive or other tracer substances into the body, or the use of other costly, invasive procedures.

#### Current Medical Imaging Technology

The clinical value of MEG is found primarily in assessing the functional state of organs of the body, both normal and abnormal. Many debilitating or life threatening disorders of the body, such as stroke,

seizures, dementia, mental illness, movement disorders, cardiac arrhythmia and gastrointestinal disorders involve a disruption of function and MEG can play an important role in assessing the status of crucial body organs.

Numerous medical imaging technologies have been developed in response to this need. These include imaging technologies oriented toward organ structure and anatomy, such as CT and MRI, and imaging technologies oriented toward function, such as PET, SPECT and fMRI.

CT and MRI produce anatomical images and aid in locating structural malformations. Their utility for functional disorders can be quite limited if there is no associated structural problem or there are multiple structural problems of which only a small number are causing the functional problem.

PET, SPECT and fMRI provide the physician with some functional information based on measurements of secondary effects of the body's activity. For PET and SPECT this is the uptake of certain radioactively labeled substances by the active tissue of the body, and for fMRI it is the change in blood flow due to the activity. All three techniques have relatively long physiological response times of one to five seconds, severely limiting their ability to follow function at the milli-second time scale, where MEG excels, and which is often required for functional disorder such as epilepsy. In addition, the use of radioactively labeled substances limits the ability of PET and SPECT to be used in longitudinal measurements. MEG, which provides a totally non-invasive functional measure with milli-second time resolution, is able to capture the brain's activity as it occurs, thereby allowing the physician to know precisely both when and, unlike EEG, where the activity occurred.

#### The 4-D MEG Systems

Our MEG systems - the Magnes 2500 WH and 3600 WH whole-head systems, and the Magnes 1300 C that is designed for the rest of the body - are systems employing superconducting detection coils and amplifiers called Superconducting Quantum Interference Devices or SQUIDS. Integrated with each system are a patient support chair/bed, patient monitoring systems, and stimulus delivery systems, all isolated from environmental magnetic fields within a Magnetically Shielded Room, or MSR. Also integrated in the system are a control console, electronic components, stimulus generating devices and analysis workstations in a surrounding suite. These systems, as well as the Magnes I and Magnes II, have been used in both neurological and cardiac applications and incorporate a number of unique technologies, which are discussed below in more detail under the caption "Patents, Know How and Proprietary Rights."

#### Medical Applications

We believe our Magnes systems have commercial potential in the diagnosis and treatment of a variety of neurological and other disorders. In developing MEG technology as a diagnostic technology we must create the appropriate economic incentives to enable a commercial success. Among these incentives, we continue to pursue the creation of sufficient numbers of diagnostic applications capable of generating cost savings or improved patient care so that large numbers of hospitals and clinics would consider purchasing MEG systems. This has facilitated the implementation of routine reimbursement for MEG procedures from third party payors and provided an increasing volume of evidence of routine approvals of reimbursements for clinical MEG procedures by third party payors.

There are currently two clinically accepted applications for our MEG systems as evidenced by the issuance of CPT codes and reimbursement levels: planning of surgical treatment for epilepsy and presurgical functional mapping of the brain.

To continue to develop the potential market for MEG, we will continue to work with our customers and other physicians and researchers to encourage and sponsor the clinical research needed to establish that the MEG applications described below, other than surgical planning for epilepsy and pre-surgical functional mapping, are medically useful and reimbursable.

We are pursuing a sales and marketing strategy to fully exploit the newly established CPT codes and reimbursement levels for MEG. While the commercial acceptance of MEG may still be uncertain, we are



developing a strategy, which is expected to include both our current direct-sales approach and the formation of strategic alliances to help accelerate the penetration of our MEG technology into our target markets of neurosurgeons, neurologists, and epileptologists.

#### *Epilepsy Surgery*

As of 1995 there were approximately 2.3 million people in the U.S. with recurrent epileptic seizures, and approximately 181,000 new cases emerge each year. The seizures for many of these people can be controlled with drugs, but a number require alternative treatments. It is estimated that at least 25 percent of the total epilepsy population have persistent seizures despite medical treatment, and could possibly benefit from surgical intervention. In 1993 about 2,500 such procedures were performed. While, to our knowledge, there has been no subsequent reliable data published, we believe, based on discussions with practitioners in the field, the rate of surgical interventions has steadily increased and will continue to do so in the near future.

Over the past decade, a number of research studies have demonstrated that MEG can noninvasively locate brain tissue suspected of triggering epileptic seizures. It is this tissue that is the target of epilepsy surgery. In the absence of a noninvasive method, it is often necessary to implant an array of electrodes directly on or into the brain to locate this tissue. The invasive evaluation approach requires lengthy hospitalization in facilities that are equipped for long-term intensive monitoring of patients, 24 hour nursing care and participation of a highly trained team of specialists. To date, the cost and relative scarcity of appropriate facilities for this long-term monitoring procedure severely limit the number of patients who can benefit from a surgical approach to epilepsy treatment.

Recent medical literature shows that the information provided by MEG could, in many cases, improve or even help avoid invasive evaluation procedures. We believe this information can be obtained with our MEG systems in a clinically acceptable time frame, and at a cost that will allow for routine use in evaluating patients for epilepsy surgery.

#### *Presurgical Functional Mapping*

Approximately 110,000 brain surgeries are performed annually in the U.S. These procedures include tumor resection, surgical correction of epilepsy and removal of vascular malformations. The precise locations of important functional regions of the brain vary among healthy individuals and even more widely among patients with large brain lesions, therefore the locations of these regions often cannot be reliably determined solely from anatomical imaging, such as MRI. However, by relating information about the primary sensory function areas provided by our MEG systems to MRI-generated anatomical images, a functional map of the brain can be obtained and presented on a screen or recorded on film. Images thus produced with our MEG systems allow the surgeon to reliably estimate the risk of damage to the identified functional areas that might arise from the surgery itself. These images also help the surgeon to select an appropriate surgical approach, such as where to open the skull, and from which direction to access the targeted area, to minimize the surgical risk.

Using our MEG systems, reliable and practical methods of providing a functional map of the brain have been developed and verified. The functional areas of the brain that can be localized by MEG include somatosensory cortex, motor cortex, language-related cortex, visual cortex, and auditory cortex. These results have been reported in a number of peer-reviewed medical journals.

#### *Neuropsychiatric Applications*

Potential neuropsychiatric applications of MEG include the diagnosis of schizophrenia and depression. It is currently estimated that approximately 3,000,000 people (1 percent of the U.S. population) will develop schizophrenia during the course of their lives, and at any given time approximately 100,000 people are hospitalized in public institutions in the U.S. for this disease. A number of studies indicate that MEG can detect differences in the brain activity in schizophrenic subjects compared to normal subjects. The variety and robustness of the differences suggest that MEG may eventually provide an objective indicator of the disease and be useful for monitoring treatment. Likewise, depressive illness affects more than 19,000,000 adults within the U.S. each year. Preliminary studies suggest that MEG may provide an objective

indicator of the disease and lead to more effective treatment. In August 2003, we installed a Magnes 3600 WH system in the Department of Psychiatry at the University of Colorado where researchers will pursue the development of such applications.

#### *Applications to Learning Disorders*

Potential applications in learning disorders include the diagnosis of dyslexia and autism. Dyslexia affects between 4 and 10 percent of the population throughout the world. PET and fMRI studies have indicated differences in metabolic activity in dyslexic adults compared to normal subjects, however direct evidence of abnormal neurological function in dyslexia is lacking. Recently, evidence has been presented from research groups in the U.S. and Europe that MEG may provide a sensitive and specific objective indicator of the reading disability in dyslexia. Autism is the third most common developmental disorder and affects nearly 400,000 people in the U.S. Recently, a sub-population of children with autism has been identified that have normal early development, followed by an autistic regression and who show a distinct MEG pattern of brain activity. The preliminary data suggest that identification of such patients by MEG may lead to therapeutic strategies that lead to significant improvement in language and autistic features.

#### *Other Neurological Applications*

Other applications areas in which MEG may have clinical value include ischemic disease and stroke, mild brain trauma and Alzheimer's disease.

Ischemia and stroke are common neurological disorders resulting from the disruption of blood supply to the brain. Each year in the U.S., more than 700,000 people suffer a major cerebrovascular event. The total direct cost to the U.S. health care system for treatment and rehabilitation of stroke exceeds \$30 billion per year. MEG may potentially assist physicians treating stroke by identifying damaged brain areas before they are detectable by CT or MRI scans. As an indicator of neurological function, MEG may be useful to monitor rehabilitation and treatment of stroke patients.

It is estimated that approximately 1,000,000 people experience traumatic brain injury each year in the U.S., of which approximately 400,000 seek medical attention. In mild brain trauma, significant structural changes are rarely seen, and functional EEG changes are typically mild and diffuse. MEG may be more sensitive than EEG and MRI in identifying brain dysfunction in such patients and may correlate well with symptomatic recovery.

Alzheimer's disease affects an estimated 4,000,000 million people in the U.S. Current diagnostic technologies; PET, SPECT and EEG are not widely accepted as being valid diagnostic or prognostic indicators of the disease. Preliminary indications suggest that MEG may show altered responses to sensory stimuli in Alzheimer's patients, thus providing a tool for diagnosis and treatment.

#### *Applications in other areas of the body*

Preliminary studies indicate that MEG could be beneficial in evaluating organs of the body outside the brain. Although the potential for a commercial market in these areas remains unknown the various parts of the body that might be evaluated with MEG include the gastrointestinal tract (gastrointestinal ischemia), spinal cord function (lower back pain) and adult and fetal heart monitoring (cardiac arrhythmia and fetal development).

#### Sales to Date

Our primary near term objective is to cooperate with researchers and physicians at key medical centers to accelerate the development, use and commercialization of our MEG systems. The use of our MEG systems must continue to be validated by clinical researchers as an effective tool for mainstream clinical applications in order to establish a commercial market. Accordingly, the early clinical research sales and collaborations with clinical sites are strategically important to our overall market development plan.

As of December 2003, we have 32 systems installed throughout the world. Installations are distributed among the U.S., Germany, Austria, Spain, France, Japan and China. Fourteen (14) sites operate Magnes

2500 WH systems. Four (4) sites operate Magnes 3600 WH systems. Ten (10) sites operate Magnes I and Magnes II systems. Two (2) sites operate Magnes 1300 C systems and two (2) sites operate custom equipment made by us.

### Marketing, Sales and Distribution

#### *Market Description*

The overall market for our MEG systems can be divided into three overlapping markets: the basic research market, the clinical research market and the commercial clinical market. Customers in each of these markets are identified by the focus of their work, the source of purchase funds, and other characteristics, as described below.

The basic research market consists of scientists working in university and government laboratories to discover new information about organ function and to make fundamental advances in their scientific fields. Patient treatment is not their principal concern. Equipment used by these scientists is generally purchased with funds provided by government and private research grants. The basic research market has been to date, and continues to represent, the majority of our sales.

The clinical research market consists primarily of university medical centers where the majority of clinical applications development work for new medical technologies and procedures is normally conducted. Because of their size, buying power, prestige, and early involvement in assessing and using new medical technologies, university medical centers continue to be the primary focus of our near-term marketing plans. We have identified more than 150 key members of this group in the U.S., Europe and Asia that are centers of excellence in neurosurgery, neurology, neurophysiology, neuroradiology and psychiatry.

With the issuance of the first CPT codes for MEG and the establishment of reimbursement levels, it becomes feasible for clinical users of MEG systems to create an MEG installation that is economically self-supporting. With our MEG systems, users with the appropriate neurosurgical patient populations can now begin to operate MEG systems with the potential for an economic return. While this model continues to need more demonstrated applications, we believe that the issuance of new CPT codes and reimbursement levels opens new sales opportunities in the commercial clinical market. We believe that we are uniquely positioned with our broad base of clinical users and clinical knowledge to take advantage of the issuance of CPT codes and work with both current and new users to create a commercial MEG market.

The National Institute of Health, or NIH, has estimated that there are approximately 90 million cases annually of neurological and mental illness disorders in the U.S. Each case represents a separate incident of such disorders, but not necessarily separate patients. In most cases, diagnostic methods for these disorders remain inadequate. According to NIH estimates, the annual cost associated with these neurological and mental illness disorders in the U.S. is more than \$285 billion. This amount includes the direct cost of health care and, in the case of neurological disorders, the indirect cost of income lost due to illness. The majority of these disorders is functional in nature and is a major cause of disability and death. In most cases, no noninvasive test exists to help physicians diagnose or effectively monitor the functional activity associated with these neurological and mental disorders. Our MEG systems are designed to address this need.

There is substantial medical evidence supporting the view that a significant percentage of mental disorders have a physiological origin that can be treated by pharmaceuticals or other methods. Currently there are few objective measures of these physiological problems, making diagnosis and treatment, including measuring the effectiveness of the treatment, problematic. MEG has demonstrated the ability to provide accurate spatio-temporal maps of neurophysiological function that might serve as an objective measure, thereby improving the clinical process. We believe the MEG systems could fulfill a major need of physicians dealing with mental disorders. Researchers are in the early stages of investigating MEG applications for mental disorders such as schizophrenia and depression. Other researchers are investigating learning and behavioral disorders, such as dyslexia and autism. As yet, no reliable

estimates can be made of the number of patients in these categories who might be aided by information provided by our MEG systems.

#### *Marketing Programs*

The currently active market for MEG systems consists primarily of the basic research market and the clinical research market, with the clinical market now emerging. We promote our products to all markets by attendance and exhibits at medical and scientific meetings. Because of our historically dominant position among MEG researchers, we maintain close contacts with potential customers in the basic research market. In order to promote sales in the clinical research market and to develop the commercial clinical market, our fundamental marketing strategy is to accelerate clinical applications development for our systems by collaborating with and promoting the work of a core group of influential medical centers engaged in medical applications development. We plan to continue implementation of this strategy by (i) encouraging physicians developing applications for our MEG systems to publish their results in professional journals, (ii) participating in key medical meetings to generate interest among targeted medical specialists, (iii) encouraging communication and collaborative projects between research groups working with the MEG systems, (iv) initiating site visits by key customers and (v) co-sponsoring education programs with our customers. We are also actively involved with professional medical societies, such as the American Academy of Neurology, or AAN, in efforts to obtain and extend reimbursement for clinical MEG studies, and involved with patient advocacy groups, such as the Epilepsy Foundation of America and its local affiliates, to increase awareness of the technology and encourage its use.

We will continue our efforts to seek out new clinical applications for MEG. Scientific publications by our customers in Europe, Japan and the U.S. have reported positive findings suggesting that MEG may be useful in the diagnosis and management of a number of neurological, neuropsychiatric and learning disorders. We will devote a significant portion of our available resources in the next year to verify and support such efforts. In addition, we will be expanding our marketing efforts into the neuropsychiatric and learning disorders fields by attending and exhibiting at appropriate medical and scientific meetings.

#### *Distribution*

We have a small direct-sales organization with the specialized skills needed to sell our MEG systems in the U.S. Our branch office in Aachen, Germany serves the European market. In September 2003 we terminated our China distribution contract with Beijing Medi-Therm Instruments, Inc. based on non-performance. We currently handle distribution of our product in Asia through a combination of direct sales, with one sales person, and a network of local distributors. We are currently in arbitration with Elekta over our distribution contracts in the U.S. and Japan. See "Legal Proceedings" in Item 3 of this annual report. We continue to explore other possible relationships that would enhance our ability to distribute and sell MEG systems throughout the world. Our revenues from sales in our North American, European and Asian markets are discussed in Note 6 to our financial statements.

#### *Long-Lived Assets*

We have long-lived assets in Europe, as well as North America. Our long-lived assets consist primarily of various fixed assets. Additional detail regarding our long-lived assets is provided in Note 6 to our financial statements.

#### *Reimbursement*

Our long-term commercial success in the U.S. is dependent upon obtaining routine approval of reimbursement for clinical MEG procedures by third-party payors. The Centers for Medicare and Medicaid Services, or CMS, formerly known as the Health Care Financing Administration which is responsible for the administration of Medicare, and the AMA that administers the use of CPT codes by most third-party payors, follow similar guidelines for determining whether a specific procedure or health care technology is "reasonable" and "necessary", and therefore reimbursable under Medicare or private insurance coverage. These guidelines generally include consideration of whether (i) the procedure or technology is more or less costly than an alternative already covered by insurance, (ii) the added benefit

of the procedure or technology is significant enough to justify the expense, and (iii) the procedure or technology provides significant medical benefits not otherwise available from other procedures or technologies.

We have worked for several years with our customers and the AAN to obtain CPT codes for MEG. These efforts came to a successful fruition in February 2001 when the AMA announced that it would assign the first three CPT specific codes for the use of MEG. The codes for MEG were published in the Federal Register on November 1, 2001. These codes are:

95965 Magnetoencephalography ("MEG"), recording and analysis: for spontaneous brain magnetic activity (e.g., epileptic cerebral cortex localization).

95966 Magnetoencephalography ("MEG"), recording and analysis: for evoked magnetic fields, single modality (e.g., sensory, motor, language, or visual cortex localization).

95967 Magnetoencephalography ("MEG"), recording and analysis: for evoked magnetic fields, each additional modality (e.g., sensory, motor, language, or visual cortex localization) (List separately in addition to code for primary procedure).

These codes were established in the neurology section of the CPT code listing. The reimbursement levels recommended provide for payments to the physician who interprets the study data are currently among the highest in the neurology section. Reimbursement levels are stated in relative value units or RVUs. These units are then assigned a dollar value depending on the specific hospital and location. For an Epilepsy study (95965) the recommended RVU level is 11.39. This RVU level is currently among the highest assigned reimbursement levels in the neurology section. For PSFM two levels were assigned, 5.78 units for the first exam on a patient and 5.07 for subsequent exams for the same patient on the same visit. We believe that these levels will enable an increasing number of referring physicians to utilize MEG.

In the publication of the CPT codes on November 1, 2001, the reimbursement level to be paid for the use of the equipment, also known as the Technical Component fee, was designated to be carrier based. This means that each insurance carrier will independently assign a payment level. We work with each of our customers and prospects to establish appropriate reimbursement levels with the carriers used by their patients. This has been the method of reimbursement that our customers have been using for up to eight years and, with our help, have been able to obtain satisfactory levels of reimbursement. We will continue to work with our customers, with the added advantage of having the CPT code available.

In November 2002, the CMS published the Ambulatory Patient Cost, or APC, codes. APC codes are cost-based codes that set the technical fee that Medicare will pay for ambulatory patients being treated within the hospital. This publication provided for reimbursement levels from \$850 to \$2,250 for the three different CPT codes that have been established for MEG. This rule went into effect January 1, 2003. This rate was further modified in November 2003, increasing the levels to between \$925 and \$5,250. This rule goes into effect on January 1, 2004.

The CPT codes became available for use starting in January 2002 and the reimbursement levels established by the CMS became available January 1, 2003 and were revised upward effective January 1, 2004. They provide the potential basis for the economic operation of MEG installations. Our sales strategies in the U.S. will be continue to focus more on the development of commercially viable sales to clinical users. It is always difficult to predict the adoption rate of a new modality, but with the assignment of CPT codes and higher reimbursement rates we believe that we have a new and powerful sales tool.

In Europe, the current MEG customers have concentrated primarily on basic research, and have not actively pursued governmental or private approval for reimbursement of MEG procedures. However, several European institutions are currently investigating mechanisms for obtaining reimbursement for MEG examinations. We are actively cooperating in these initiatives. There is no assurance at this time that these efforts will be successful, nor do we have an accurate estimate of the time frame.

### *Product Prices and Terms of Sale*

The current prices for our MEG systems range from approximately \$1.0-\$2.5 million, depending upon system configuration. Standard terms of sale provide for payments of 30-40% of the purchase price upon placement of the order, 40-50% upon shipment and the remaining 20% when installation is completed and final acceptance is obtained from the customer. For European customers who receive their funding from governmental agencies, we are generally required to provide a bank guarantee for the amount of the deposit. That guarantee is usually released upon shipment and/or acceptance by the customer. The time between placement of an order and installation typically ranges between six and twelve months. We also enter into special collaboration and sale arrangements with certain medical centers to promote clinical applications development. These standard terms of sale may change to accommodate customer requirements.

### *Installation, Service and Training*

In the medical device market the ability to provide comprehensive and timely service is a key competitive advantage and is important for establishing customer confidence. Installation and service for our products worldwide is provided from our San Diego, California headquarters and from our branch office in Aachen, Germany, both of which maintain customer service departments capable of performing sophisticated systems installation and equipment maintenance. Elekta provides service to MEG systems in Japan.

Installation and a service agreement for the first year are included as part of the standard terms of sale in the U.S. and Europe. Thereafter, service and maintenance are available on a time and materials basis or pursuant to a yearly service agreement for an annual fee.

Initial customer training in the operation of our MEG systems is provided by our personnel at the customer's site and is included in the selling price of the system. Physician training in interpreting the clinical significance of MEG information is currently provided at our cooperating U.S. clinical sites.

### Competition

We operate in an industry characterized by rapid technological change. New products using other technologies or improvements to existing competing products may reduce the size of the potential markets for our products, and may render them obsolete or non-competitive. Competitors may develop new or different products using technology or imaging modalities that may provide or be perceived as providing greater value than our products. Any such development could have a material adverse effect on our financial position and results of operations.

Additionally, there continues to be significant price competition from our main competitors for the limited number of purchases of whole head systems worldwide. This aggressive competition has and may continue to affect profit margins on sales of our whole head system, the extent of which is not presently determinable.

Companies we know that currently manufacture an integrated large-array MEG system are CTF Systems Inc., a Canadian company, Yokagawa Electric working in conjunction with Eagle Technologies, both Japanese companies, Shimadzu, a Japanese company, Daikin, a Japanese company and Neuromag, our former Finnish subsidiary.

Many of our current or potential future competitors have significantly greater financial, manufacturing, distribution and technical resources than our company. Our success will depend upon various factors, including our ability to continue our technological and market development leadership role, and the ability to raise necessary capital for further development and commercialization.

### Backlog

As of September 30, 2003, the aggregate amount of revenue backlog from firm orders for Company products and services was approximately \$5,200,000, compared to approximately \$5,100,000 as of September 30, 2002, of which we expect to fill approximately \$3,500,000 before September 30, 2004. The

revenue backlog is composed primarily of orders for two Magnes 3600 WH systems and deferred service revenues on systems accepted before September 30, 2003. The amount of cash yet to be generated from backlog at September 30, 2003 is approximately \$1,700,000 compared to approximately \$2,300,000 as of September 30, 2002. As sales of our systems typically involve transactions of \$1 million or more, backlog is expected to fluctuate significantly from year to year depending upon timing of orders received, installations completed and customer acceptances received during the reporting period.

#### Research and Development

We have recently funded our product research and development primarily through private sales of stock, and revenues from product sales. We spent \$883,000 and \$1,022,000, in fiscal years 2003 and 2002 respectively. The continued reduction in expenditures represents the maturity of the current product offered combined with the delay of the emergence of a clinical, commercial market for MEG. We have been able to shift our research and development focus from system development to support of applications development through incremental improvements in our hardware systems and improvements in our software systems to support both new research activities of our customers and increasing the efficiency of our software for clinical applications.

#### Manufacturing and Materials

We engineer and manufacture the major component of our Magnes systems, other than the host computer and its peripherals, the MSR which houses the sensor, and the sensor position indicator hardware used to determine how the sensor is oriented to the body. We are also currently purchasing our Magnes SQUID amplifiers from an outside source. However, through our joint ownership of Magnesensors, Inc., we have the ability to provide for fabrication of our SQUID amplifier requirements should such a need arise.

Of the major components of the MEG systems we do not manufacture, the host computer and peripherals are widely available standard items. Other major purchased components are constructed in accordance with Company specifications that ensure compatibility with our MEG systems. Three European manufacturers currently supply the MSRs for MEG systems sold in the U.S., Europe and China. A separate Japanese supplier provides MSRs for the Japanese market. We believe we have adequate alternate sources of supply for this major system component from these sources.

Certain product engineering designs are performed by the manufacturer, as are certain software and hardware components. We believe our use of outside designers is appropriate for the proven and mature state of the current systems, and has reduced the need for extensive in-house products engineering efforts. To date, the use of outside designers has not limited our ability to produce competitive systems.

We believe our current manufacturing and testing capacity in the U.S. is sufficient to satisfy present demand. In order to achieve our long-term objectives, however, we will be required to expand production capabilities, mainly through additional manufacturing personnel and by potentially subcontracting assembly of additional system components. We believe that our control over the development and manufacture of our MEG systems will enable us to modify our devices to address specific needs of anticipated clinical applications without significant dependence upon outside suppliers, manufacturers or providers of technology.

#### Governmental Regulation; Regulatory Approvals

We are subject to various regulations of the FDA and California Health Services. In particular, the FDA and California Health Services have promulgated regulations to which we must adhere, including, but not limited to, minimum manufacturing standards, product operating effectiveness and functional safety of our diagnostic products. The FDA regulates marketing of medical devices, requiring pre-market clearance or pre-market approval based upon review of information submitted by us relating to intended product use, labeling, safety and efficacy. The pre-market clearance or approval processes are based upon risk class and degree of equivalence to devices already marketed that are proven to be safe and effective. We are also compliant with ISO 9001.

Our continued compliance with applicable governmental regulations are assessed by internal audits and by audits of manufacturing operations and procedures conducted by the FDA and California Health Services. These agencies have the authority, among other rights, to limit or stop product shipments and require product recall should a failure to comply with regulations be observed. We have registered with the FDA and California Health Services as a medical device manufacturer. California Health Services has completed an inspection of our facilities and manufacturing processes and has issued us a license that permits it to manufacture, sell and ship the Magnes systems as medical devices for diagnostic purposes. The FDA conducted an audit of us for compliance with federal current Good Manufacturing Practices, or cGMP, regulation requirements in July 1996. We have updated our internal quality systems to be compliant with the current Quality System Regulations, or QSRs, of the FDA. Based on internal audits we believe we are in full compliance with the FDA QSRs. In addition, we have been certified as compliant with ISO 9001, an internationally recognized quality system that is compatible with the FDA QSR's and will aid in our ability to ship systems worldwide, especially to the European Union.

In order to export our products, we must comply with U.S. export control regulations, which restrict the export of devices containing certain of our technology to certain foreign nations. Although the export control regulations have not prohibited us from exporting our MEG systems to foreign nations, there can be no assurance that we will continue to be able to obtain the necessary export licenses in the future. We are currently allowed to export the Magnes systems to many foreign countries, including all Western European countries and Japan, under a general license that requires no additional approval prior to shipment.

Medical devices are placed in one of three classes, depending upon their use or the degree to which they provide functions critical to sustaining life. Class I devices, such as tongue depressors, are subject to general controls, including Quality System Regulations or QSR. Class II devices, to which MEG systems belong, are subject to general performance standards not yet established by regulation. General controls of Class I devices presently apply to Class II devices, because no performance standards have been developed or promulgated by the FDA for Class II devices. Other examples of Class II devices are the ECG and EEG instruments. Class III devices consist of "critical devices," those represented to be life sustaining or life supporting, implanted in the body or presenting potential unreasonable risk of illness or injury. Examples are kidney dialysis systems and cardiac pacemakers. Class I and II devices may be marketed by demonstration of "substantial equivalence" to existing devices via a Section 510(k) pre-market notification, and subsequent FDA clearance to market. Under this process the Magnes I and Magnes II systems have been determined to be substantially equivalent to our prior Model 607 Neuromagnetometer and to EEG. The Magnes 2500 WH system has been found to be substantially equivalent to the Magnes II system. The Magnes 3600 WH system has been found to be substantially equivalent to the Magnes 2500 WH.

While Western Europe and Japan have regulatory agencies that are somewhat similar to the FDA, each country's regulatory requirements for product acceptance are unique and will require the expenditure of substantial time, money and effort to obtain and maintain regulatory acceptance for marketing for clinical use. There can be no assurance that we will be able to obtain and maintain such approvals. The Magnes I, Magnes II, and Magnes 2500 WH systems have all received JMHV approval.

#### Patents, Know How and Proprietary Rights

We rely on proprietary technology and seek to maintain confidentiality of our trade secrets, un-patented proprietary know how and other proprietary information, and seek to obtain patent protection when appropriate. As of September 30, 2003, we hold 37 patents in the U.S. of which 22 pertain to our current whole head system product line. 11 of the 37 patents had counterpart patents issued in certain member countries of the European Patent Organization, in Canada and in Japan. These patents will expire at the earlier of 17 years after the issue date or twenty years after the priority date of record; these dates of expiration vary over the range from 2007 to 2019. As of September 30, 2003 we had filed one U.S. patent application. We have also filed two applications with the European Patent Organization for patent protection in Western Europe and three applications in Japan. We anticipate that patents, if issued, will be issued (i) within 2 to 20 months, with respect to the pending patent applications in the U.S. and (ii)



within 3 years, with respect to the pending patent applications in Western Europe. We have reserved our priority with respect to receiving patents on our applications in Japan, and are either currently pursuing or may pursue those applications in the future.

Our patents protect several fundamental aspects of the technology used in our products. Patents have been issued with respect to superconducting devices, ultra-low-noise electronics circuits, biomagnetometer design, biomagnetic signal processing, magnetic shielding techniques, noise suppression methodologies, cryogenic apparatus construction techniques, and system design concepts. Patent applications have been filed with respect to a new process for fabrication of electronic devices using high-temperature superconducting materials, superconducting device designs, magnetic shielding technology, cryogenic refrigeration, ultra-low-noise electronic circuits, patient handling equipment and biomagnetic signal processing and data analysis. We are currently considering additional patent applications covering inventions already made in these and related fields of technology. Rights to certain of our patents associated with the application of so-called high temperature superconductors have been assigned to Magnesensors, Inc., partially owned by us, Quantum Magnetics and certain of our officers. Our President and Chief Executive Officer, D. Scott Buchanan, is also a member of the board of directors of Magnesensors.

4-D Neuroimaging® with and without the logo, the 4-D logo alone, Biomagnetic Technologies® with the logo and Neuromagnetometer® are registered trademarks of the Company by registration with the U.S. Patent and Trademark Office. MSI® and Magnetic Source Imaging® are registered trademarks in the State of California.

We have pioneered the development of technologies associated with MEG. Several core technologies that have been developed by and represent proprietary know how to the Company include superconducting magnetic field detectors, magnetic noise reduction, data analysis and clinically useful temporal and overlay displays. Many of these techniques and technologies are patented. As a result, we believe we have established an industry leadership position in MEG.

On or about November 5, 2002, we pledged our portfolio of U.S. patents as collateral against a line of credit from AIG Bank in the amount of \$1,000,000 (see Note 4 of the consolidated financial statements).

#### Human Resources

As of November 6, 2003, we employed a total of 34 permanent full-time and part-time employees, eight of whom hold Ph.D. degrees. There are 25 employees based at our facilities in San Diego, California and nine in Aachen, Germany. None of our employees are covered by a collective bargaining agreement and we have experienced no work stoppages. We believe our relationships with our employees to be good.

#### Factors That May Affect Future Results

This annual report on Form 10-KSB may contain forward-looking statements that involve risks and uncertainties. Such statements include, but are not limited to, statements containing the words "believes", "anticipates", "expects", "estimates", and words of similar import. Our results could differ materially from any forward-looking statements, which reflect management's opinions only as of the date hereof, as a result of factors, such as those more fully described under "Risks and Uncertainties" as well as described in this annual report. We undertake no obligation to revise or publicly release the results of any revisions to these forward-looking statements. Readers should carefully review the risk factors set forth below as well as other factors addressed in this report and other documents we file from time to time with the SEC. This caution is made under safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

#### Risks and Uncertainties

We face the following risks associated with our business operations:

*We have historically reported significant net losses and negative cash flows from operations. If we continue to incur operating losses and negative cash flows from operations, we may be unable to continue our operations. As a result, there is substantial doubt about our ability to continue to operate as a going concern.*

Our financial position reflects that we have been focused on research and development and that a commercial MEG market has not developed, resulting in low volume sales to medical research institutions. Our net losses in the last two years have been as follows:

- \$3,708,000 of losses in fiscal year 2003 and
- \$10,038,000 of losses in fiscal year 2002

In the last two years, our negative cash flows from operations have been as follows:

- \$3,409,000 in fiscal year 2003 and
- \$2,757,000 in fiscal year 2002

Our total assets have also decreased in the last two fiscal years to \$4,760,000 in 2003 compared to \$8,514,000 in 2002. As of September 30, 2003, our accumulated deficit was \$124,689,000, the shareholders' deficit was \$3,920,000 and we had negative working capital of \$1,717,000.

Historically, we have raised additional capital through our majority shareholders and related parties to fund continuing operations. There can be no assurance that these sources of capital will continue to be available on terms acceptable to us, if at all. We are uncertain with respect to additional funding and may be unable to meet our future capital needs. As a result, there is substantial doubt about our ability to continue to operate as a going concern.

*Our management and controlling shareholders, which together control in excess of a majority our common stock, may control our operations and make decisions that other shareholders do not consider in their best interest.*

Our present directors, executive officers and principal shareholders and their affiliates beneficially own a majority of our outstanding common stock. As a result, if all or some of these shareholders were to act together, they could exercise significant influence over all matters requiring shareholder approval, including the election of directors and approval of significant corporate transactions. Such concentration of ownership may also have the effect of delaying or preventing a change in our control that may be favored by other shareholders.

*If we are unable to satisfy customer performance and service requirements we may be unable to compete effectively.*

Our success may be limited by our ability to satisfy customer performance requirements for our systems, as well as by our ability to complete, in a timely fashion, product developments and enhancements to satisfy customer requirements. In addition, if we or our distributors are not able to respond in a timely manner to service requirements, our competitiveness may be adversely impacted.

*Our vendors may not continue providing favorable credit terms.*

Due to our liquidity issues, we have extended vendor payments beyond normal credit terms. If our major vendors were to decline further credit or require cash on delivery payments, our financial position, results of operations and cash flows would be adversely impacted.

*Our current arrangements for distribution of our products in the U.S. and Japan are uncertain and may adversely impact our rate of sales in those regions.*

In March 2003, Elekta AB, the parent company of Elekta Instruments Inc. and Elekta KK, our distribution partners in the United States and Japan respectively, announced their acquisition of 4-D Oy (also known as Neuromag Oy), our former subsidiary, which had been sold to Vaandramolen Holding BV in October 2002. This acquisition may have an adverse impact on the distribution of our products in these territories. We are currently in dispute regarding our distribution agreements with Elekta Instruments and Elekta KK and arbitration proceedings were commenced on or about April 30, 2003, and June 16, 2003, before the American Arbitration Association and International Chamber of Commerce, respectively. Elekta Instruments is seeking termination of our distribution agreement as well as unspecified monetary damages and costs. We are seeking unspecified monetary damages and certain other equitable remedies in our claims and counterclaims against Elekta KK and Elekta Instruments. These disputes may result in, among other things, a change in our distributors or the termination or a change in the structure of our

distribution agreements. We intend to vigorously pursue our rights under the distribution agreements and we expect to incur significant additional fees for professional services as a result of these disputes. We are unable to predict the outcome of these proceedings.

*If we are unable to identify additional clinical applications for our MEG systems, there will be limited commercially viable markets for our products.*

Currently, there are only a few established diagnostic uses for MEG systems known by the medical industry. A commercial market may never develop for multiple uses of our products. A lack of additional clinical applications may limit the commercial market for our MEG systems and will have a material adverse impact on our financial position, results of operations and cash flows.

*If foreign currency exchange rates fluctuate, our return on sales in U.S. dollars may suffer.*

Significant portions of our sales to date have been in foreign markets. Revenues from international sales represented 24% of our revenues from MEG systems for the fiscal year ending September 30, 2003. We expect that revenues from international sales will continue to represent a significant portion of our annual revenues. Because we sell in foreign markets, we are exposed to potential risks of increases and decreases in foreign currency exchange rates. Fluctuations may reduce the return in U.S. dollars that we actually receive on our sales. Although as of September 30, 2003 and 2002 we did not have any open forward exchange contracts, upon occasion, we may enter into forward exchange contracts to partially hedge (or protect) against such foreign currency exchange risks.

*If we fail to compete successfully, our revenues and operating results will be adversely affected.*

Historically, our industry has been characterized by ongoing price competition. Our competitors compete with us for the limited number of whole head systems currently being purchased worldwide. The future profitability of our systems may be negatively impacted by this competition.

*If we are unable to develop additional products, our ability to commercialize our products will be adversely impacted.*

Our success may be limited by our dependence on our current line of MEG systems. We are currently dependent on sales of our MEG systems to basic research institutions that represent a market of limited size. Our current product line may not fully meet the needs of a commercial clinical market and we may be required to develop additional products directly suited to an emerging set of needs from this market. Our financial results may be materially adversely affected if our current line of MEG products does not fully meet the commercial applications that emerge, or we are not able to offer new products in a timely and cost effective manner.

*If new government legislation is enacted or unfavorable medical industry trends arise, we may be unable to sell our products and our revenues will suffer.*

We cannot predict what adverse effect, if any, future legislation or FDA regulations may have on the MEG market and our financial results. Medical industry cost containment trends may impose restrictions on sizeable third-party reimbursements for diagnostic procedures, limiting the market opportunity. Further, if federal government agencies or any state legislature enacts legislation or guidelines relating to our business or the health care industry that create additional business hurdles, including legislation relating to third party reimbursement, our financial position and results of operations could be negatively affected.

*Our success is dependent upon our ability to attract and retain qualified scientific and management personnel.*

The loss of services of any one of our executive management or key scientific personnel would delay our ability to execute our business plans and reduce our ability to successfully develop and commercialize products, maintain good customer relationships and compete in the marketplace. There can be no assurance that we will be able to hire, train or retain such qualified personnel.

In addition, the loss of the services of Dr. Buchanan, who currently serves as our President, Chief Executive Officer and Principal Financial Officer would have a material adverse effect on our prospects.

Currently none of our executive officers have an employment agreement or contract with us. All of our executive officers are "at-will" employees and under no specified term arrangements.

*If discoveries or developments of new technologies occur, our products and technology may become obsolete.*

Our industry is characterized by rapid technological change, which may also impact our commercial success. Competitors may develop products using other technologies or may improve existing products. This competition may reduce the size of the potential market for our products or make them obsolete or non-competitive. Competitors may also develop new or different products using technology or imaging modalities that provide, or are perceived as providing, greater value than our products. Our financial position and results of operations will be materially adversely affected if such competitive developments occur.

*Our stock price is highly volatile and subject fluctuations and other market conditions.*

The market prices for securities of companies with newly emerging markets have historically been highly volatile, and their stock price from time to time has experienced significant price and volume fluctuations that are unrelated to the operating performance of such companies. Moreover, our relatively low trading volume increases the likelihood and severity of volume fluctuations, which likely will result in a corresponding increase in the volatility of our common stock price. Factors such as announcements of recapitalizations, complex technological innovations or new sales, governmental regulations, developments in patent or other proprietary rights, developments in our relationships with collaborative partners, general market conditions and the timing of decisions by our existing shareholders to sell large positions of our common stock may have a significant effect on the market price of our common stock. Fluctuations in financial performance from period to period, or acceleration of any of our debt by our lenders, also may have a significant impact on the market price of our common stock.

## **ITEM 2. PROPERTIES.**

Our executive offices and manufacturing facilities are located in a 55,000 square foot facility at 9727 Pacific Heights Boulevard, San Diego, California. All U.S. operations are conducted from this facility, which was first occupied in December 1989. In February 2003, we signed a new five-year lease agreement with the owners of the property. The lease expires in February 2008. The leased space has been reduced to approximately 46,000 square feet and the average monthly lease payment for the first year and over the term of the lease will be approximately \$35,000 and \$52,000 respectively. We sublease approximately 450 square feet of the leased facility on a month-to-month basis to one company for a net monthly rent of approximately \$425.

The branch office in Germany leases approximately 3,000 square feet at Gruener Weg 82, D-5100 Aachen, Germany pursuant to a year-to-year lease agreement expiring in December 2003. Monthly lease payments are approximately \$2,000. Sales and service for the European operations are conducted from the German facility.

## **ITEM 3. LEGAL PROCEEDINGS.**

In March 2003, Elekta AB, the parent company of Elekta Instruments Inc. and Elekta KK, our distribution partners in the United States and Japan respectively, announced their acquisition of 4-D Neuroimaging Oy, (also known as Neuromag Oy) our former subsidiary, which had been sold to Vaandramolen Holding BV in October 2002. This acquisition may have an adverse impact on the distribution of our products in these territories. We are currently in dispute regarding our distribution agreements with Elekta Instruments and Elekta KK and arbitration proceedings were commenced on or about April 30, 2003 and June 16, 2003 before the American Arbitration Association and International Chamber of Commerce, respectively. Elekta Instruments is seeking termination of our distribution agreement as well as unspecified monetary damages and costs. We are seeking unspecified monetary damages and certain other equitable remedies in our claims and counterclaims against Elekta KK and Elekta Instruments. These disputes may result in, among other things, a change in our distributors or the termination or a change in the structure of our distribution agreements. We intend to vigorously pursue our rights under

the distribution agreements and we expect to incur significant additional fees for professional services as a result of these disputes. We are unable to predict the outcome of these proceedings.

#### ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

None.

#### Subsequent Event

On December 16, 2003, our board of directors approved and on December 17, 2003, the holders of 83.4% or 185,118,845 of the outstanding shares of our common stock executed written consents approving, among other things, an amendment to our Seventh Amended and Restated Articles of Incorporation which, upon filing with the Secretary of State of the State of California, will give effect to a 1-for-1,200 reverse split of our common stock. The actions to be taken pursuant to the written consents shall not be deemed to be effective until at least 20 days after the mailing of our Information Statement. Our board of directors retains the right to abandon the reverse split, even though approved, if it determines prior to the effective date that the reverse split is not then in our best interest or the best interest of our shareholders.

### PART II

#### ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED SHAREHOLDER MATTERS.

Our common stock is currently trading on the Nasdaq Over the Counter Bulletin Board, or OTCBB, under the symbol "FDNX.OB." The following table sets forth the range of high and low closing sales prices by quarter for our common stock as reported by the OTCBB for the last two fiscal years. Such quotations represent inter-dealer prices without retail markup, markdown or commission and may not necessarily represent actual transactions.

##### Fiscal Year 2003

	High	Low
1st Quarter ended December 31, 2002	\$0.14	\$0.03
2nd Quarter ended March 31, 2003	\$0.11	\$0.06
3rd Quarter ended June 30, 2003	\$0.16	\$0.06
4th Quarter ended September 30, 2003	\$0.09	\$0.04

##### Fiscal Year 2002

	High	Low
1st Quarter ended December 31, 2001	\$0.16	\$0.08
2nd Quarter ended March 31, 2002	\$0.20	\$0.09
3rd Quarter ended June 30, 2002	\$0.13	\$0.08
4th Quarter ended September 30, 2002	\$0.11	\$0.04

As of November 6, 2003, there were approximately 389 holders of record of our common stock and 221,859,748 shares of common stock outstanding. The reported closing price for our common stock on the OTCBB on November 6, 2003 was \$0.05 per share.

We have never declared or paid dividends on our common stock. We do not anticipate declaring any dividends on our common stock in the foreseeable future and intend to retain future earnings, if any, for the development of our business. There are no contractual obligations, preferences or restrictions related to the declaration or distribution of dividends.

The following table sets forth information as of September 30, 2003 regarding compensation plans under which equity securities of our company are authorized for issuance.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	4,857,519	\$0.37	73,704,629
Equity compensation plans not approved by security holders	0	\$0.00	0
Total	4,857,519	\$0.37	73,704,629

See Note 12 to our financial statements the material features of our equity compensation plans.

#### ITEM 6. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following information should be read in conjunction with the consolidated financial statements and Notes in Part II, Item 7 of this Form 10-KSB. See "Risks and Uncertainties" regarding factors known to us that could cause reported financial information not to be necessarily indicative of future results.

##### Overview

We are engaged primarily in the business of developing, manufacturing and selling innovative medical imaging systems to medical institutions. The MEG systems that we developed measures magnetic fields created by the human body for the non-invasive diagnosis of certain medical disorders, primarily in the brain. We are focusing on the use of our technology for potential commercial market applications such as the diagnosis and planning for surgical treatment of epilepsy, and the functional mapping of areas of the brain at risk during surgery. We continue to investigate the potential applications of our technology for neuro-psychiatric disorders of the brain such as schizophrenia, as well as for problems of the heart, spine and other organs.

As of September 2003, thirty-two (32) of our MEG systems have been installed in medical and research institutions worldwide. Related findings by us and our collaborators have been published in more than 240 scientific and medical papers.

Our current Magnes product line consists of the Magnes 2500 WH, the Magnes 3600 WH, and the Magnes 1300C, pricing for which ranges from approximately \$1.0 to \$2.5 million, depending on the configuration. Major portions of our sales have been in foreign markets. Our European sales have been made in the currency of the country in which the product was sold. Thus, the prices of such products in dollars varied as the value of the dollar fluctuated against the quoted foreign currency price. There can be no assurances that currency fluctuations will not reduce the dollar return to us on such future European sales. Although as of September 30, 2003 and 2002, we do not have any open forward exchange contracts, we may in the future enter into forward exchange contracts to partially hedge against such foreign currency exposure, if appropriate.

In October 2002, we sold 100% of our shares in Neuromag Oy to Vaandramolen Holding BV, or VHBV, for \$4,000,000, which is discussed in more detail in Note 3 of the consolidated financial statements. We used \$3,694,000 of the proceeds from the sale to fully repay the loan from AIG, which had been used to fund our acquisition of Neuromag in December 1999. At that time we had acquired all of the issued and outstanding capital stock, or Shares, of Neuromag Oy pursuant to the terms of a share purchase agreement by and between 4-D and Marconi Medical Systems, Inc. ("Marconi"). Under the terms of the

share purchase agreement, we paid a total of \$10 million in cash to Marconi for the purchase of the Shares. We also agreed to pay an interest-free minimum royalty obligation of \$312,500 per year (totaling \$2,500,000) to Marconi under an ancillary royalty agreement over the next 8 years. We retain responsibility for the royalty agreement after the sale of Neuromag.

We believe that to date the relatively small number of proven medical applications for MEG systems, the lack of routine reimbursement for MEG procedures, and the uncertainty of product acceptance in the U.S. market have limited system sales through fiscal 2003. With the issuance of CPT codes for MEG the clinical acceptance of MEG system has begun to increase but it is not possible to reliably predict the timing and extent of future product sales due to the long sales cycles and the uncertainties in the rate of impact the CPT codes will have on the market. We do not anticipate multiple sales to the same end-user at current sales volumes, and the sale of one MEG system may still have a significant impact on our financial position and results of operations during any reporting period. As a result, quarterly and annual operating performance will continue to fluctuate significantly.

### Liquidity and Capital Resources

We continued to experience substantial losses of \$3,708,000 in fiscal year 2003. We had negative cash flows from operations of \$3,409,000 in fiscal year 2003.

In December 1999, we acquired all of the issued and outstanding capital stock, or Shares, of Neuromag Oy pursuant to the terms of a share purchase agreement with Marconi. Under the terms of the share purchase agreement, we paid Marconi a total of \$10,000,000 in cash for the purchase of the Shares and agreed to pay Marconi between a minimum of \$2,500,000 and a maximum of \$5,000,000 in royalties under an ancillary royalty agreement over an eight-year period. As of September 30, 2003, we have paid a total of \$625,000 under the royalty agreement.

The acquisition of Neuromag Oy was funded by a loan from AIG in the principal amount of \$11,000,000. Mr. Egli, a member of our board of directors, is also a member of the board of directors of AIG. Interest under the AIG loan accrued at the rate of 6.8% per annum until April 26, 2002, at which time the interest rate was reduced to 4.4% per annum for the remainder of the loan term. On May 15, 2002 the accrued interest in the amount of \$232,000 was capitalized increasing the principal loan balance to \$3,590,000. The AIG loan matured in July 2002.

In October 2002, we sold our Finnish subsidiary, Neuromag Oy, to Vaandramolen Holdings, BV, a Dutch company, for \$4,000,000 in cash. \$3,694,000 of these funds we used to pay back the \$3,590,000 of principal and \$94,000 of interest due on our loan from AIG and to pay the \$10,000 bank service fee. We retain responsibility for the royalty agreement by and between the Company and Marconi. See Note 3 of the consolidated financial statements for additional information with regard to the sale of Neuromag Oy.

In November 2002, we entered into another line of credit with AIG Bank for \$1,000,000. The interest on the line of credit is 4.17% and initially the line of credit was due and payable November 5, 2003. In January 2003 the maturity of the line of credit was extended until May 5, 2004. Proceeds were used to pay off the two \$125,000 unsecured loans from Enrique Maso and Swisspartners and the two \$100,000 unsecured loans from MATRUST, S.L. and International Sequoia Investment Ltd. Each loan had an interest rate of 8% per annum. Accrued interest for Enrique Maso was recorded as a gain upon the extinguishment of the debt and is reflected in "Other Income" on the statement of operations. The accrued interest for Swisspartners was due and payable in March 2003 and paid in April 2003. Proceeds were also used to pay accounts payable in the amount of \$120,000 to Dr. Galleon Graetz, a member of our board of directors and a consultant. The respective parties then pledged all of these amounts, totaling \$570,000 as collateral against the loan. The remaining amount was used for general corporate purposes.

As additional collateral against the loan, Mr. Egli, a member of our board of directors, provided a personal guarantee of \$500,000 and we pledged our U.S. patent portfolio and a Magnes 2500 WH system, currently installed at the University of Alabama, to which we retain title.

In December 2002, we were authorized to offer and issue up to an additional 60,000,000 shares of common stock at a price not less than \$0.05 per share. During December 2002 an additional 60,000,000

shares were issued to Swisspartners Investment Network AG in a private placement transaction in accordance with Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended, in exchange for cash in the aggregate sum of \$3,000,000.

Capital equipment expenditures totaled \$23,000 in fiscal year 2003 compared to \$164,000 in fiscal year 2002, of which \$127,000 is related to discontinued operations. The decrease in fiscal year 2003 can be attributed principally to a decrease in purchases during the year. Capital expenditures will continue to remain low due to our focus on the marketing of our current product line to the emerging clinical market.

In February 2003, we signed a new five-year lease agreement with the owners of the property on which our headquarters are located in San Diego. The lease expires in February 2008. The leased space has been reduced to approximately 46,000 square feet and the average monthly lease payment for the first year and over the term of the lease will be approximately \$35,000 and \$52,000 respectively. We sublease approximately 450 square feet of the leased facility on a month-to-month basis to one company for a net monthly rent of approximately \$425.

The branch office in Germany leases approximately 3,000 square feet at Gruener Weg 82, D-5100 Aachen, Germany pursuant to a year-to-year lease agreement expiring in December 2003. Monthly lease payments are approximately \$2,000. Sales and service for the European operations are conducted from the German facility.

In March 2003, Elekta AB, the parent company of Elekta Instruments Inc. and Elekta KK, our distribution partners in the United States and Japan respectively, announced their acquisition of 4-D Oy (also known as Neuromag Oy), our former subsidiary, which had been sold to Vaandramolen Holding BV in October 2002. This acquisition may have an adverse impact on the distribution of our products in these territories. We are currently in dispute regarding our distribution agreements with Elekta Instruments and Elekta KK and arbitration proceedings were commenced on or about April 30, 2003, and June 16, 2003, before the American Arbitration Association and International Chamber of Commerce, respectively. Elekta Instruments is seeking termination of our distribution agreement as well as unspecified monetary damages and costs. We are seeking unspecified monetary damages and certain other equitable remedies in our claims and counterclaims against Elekta KK and Elekta Instruments. These disputes may result in, among other things, a change in our distributors or the termination or a change in the structure of our distribution agreements. We intend to vigorously pursue our right under the distribution agreements and we expect to incur significant additional fees for professional services as a result of these disputes. We are unable to predict the outcome of these proceedings.

The accompanying consolidated financial statements have been prepared assuming that we will continue as a going concern. As discussed above and as shown in the accompanying consolidated financial statements, we have operating and liquidity concerns that raise substantial doubt about our ability to continue as a going concern. There can be no assurance that we will be able to successfully improve our operating results or that our liquidity and capital resources will be sufficient to maintain normal operation. The financial statements do not include any adjustments relating to the recoverability and classification of asset carrying amounts or the amount and classification of liabilities that might result should we be unable to continue as a going concern.

#### Results of Operations

The consolidated financial statements and notes thereto referenced in Item 7 should be read in conjunction with the following review:

Total revenues for fiscal year 2003 were \$2,808,829, including \$891,561 of service revenues, compared to \$5,302,589 of total revenues, including \$812,020 of service revenues, for fiscal year 2002. This decrease in total revenues was due primarily to the recognition of revenue for one MSI system sale in fiscal year 2003 as compared to two new and one refurbished system sales in fiscal year 2002. The revenues for fiscal year 2003 were due primarily to the recognition of revenue associated with the completion of a previous contract, the recognition of one magnetically shielded room and the recognition of one MSI system sale.



Cost of revenues for fiscal year 2003 were \$3,097,195, compared to \$5,157,509 for fiscal year 2002. This decrease in total cost of revenues was due primarily to the recognition of revenue for one MSI system sales in fiscal year 2003 as compared to two new and one refurbished system sales in fiscal year 2002. The cost of revenues for fiscal year 2003 were due primarily to costs associated with the completion of a previous contract, one MSI system sale and related unabsorbed overhead.

Research and development expenses for fiscal year 2003 amounted to \$882,763, compared to \$1,022,178 fiscal year 2002. The reduction of research and development expenses for fiscal year 2003 as compared to fiscal year 2002 was due to continued, incremental cost reductions in our overhead structure and is consistent with our increased focus on marketing and sales.

Marketing and sales expenses amounted to \$1,520,416 for fiscal year 2003, compared to \$1,747,460 for fiscal year 2002. The decrease in marketing and sales expenses in fiscal year 2003, compared to fiscal year 2002, was due to the reduction of trade shows and other related expenses and cost reductions in our overhead structure.

General and administrative expenses totaled \$1,623,762 for fiscal year 2003, compared to \$1,616,210 for fiscal year 2002. The increase in general and administrative expenses in fiscal year 2003 as compared to the same prior year period was primarily due to increased legal fees associated with arbitration with Elekta regarding our distribution agreements with Elekta Instruments and Elekta KK.

Interest expense totaled \$391,035 for fiscal year 2003, compared to \$24,726 during fiscal year 2002. The increase in interest expense in fiscal year 2003, as compared to fiscal year 2002 was due primarily to the interest paid on the line of credit we established with AIG Private Bank and the interest we accrued on certain outstanding payables.

Other income totaled \$540,767 in fiscal year 2003, compared to \$24,004 in fiscal year 2002. The increase in other income was due primarily to foreign currency exchange effects and revenue sharing payments from certain installed systems.

Net loss for the fiscal year ended September 30, 2003 amounted to \$3,707,503 compared to a net loss of \$10,038,122 for the comparable period in the prior fiscal year. The decrease in net loss in fiscal year 2003 was primarily due to the sale of our Finnish subsidiary in October 2002, the resolution of liability obligations directly related to the sale of our Finnish subsidiary in October 2002 and other cost cutting reasons we implemented.

#### Discontinued Operations

In December 1999, we acquired Neuromag Oy, located in Helsinki Finland for \$10 million in cash and an interest-free minimum royalty obligation of \$312,500 per year for eight years (totaling \$2.5 million) to Marconi Medical Systems, Inc., Cleveland, Ohio. The funds for the purchase were provided by a loan from AIG Private Bank Ltd. ("AIG") totaling \$11 million secured by 100% of the outstanding and issued capital stock of Neuromag Oy and guaranteed by an unaffiliated entity.

In April 2001, \$8,951,000 of the debt to AIG was cancelled in exchange for 42,623,810 shares of our common stock as part of a private placement transaction with specified investors in accordance with Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended. The common stock was issued at a per-share price of \$0.21.

The remainder of the AIG bank loan was restructured. The restructured AIG loan in the principal amount of \$3,357,000 matured in July 2002, at which time we defaulted on the loan.

Due to changes in the business environment and to satisfy the debt to AIG we decided to sell our Finnish subsidiary, Neuromag Oy. The subsidiary was sold to Vaandramolen Holding BV, or VHBV, in October 2002, for a total of \$4,000,000 in cash. \$3,694,000 of the proceeds were used to fully pay the AIG bank debt, \$100,000 were used to pay part of the existing intercompany debt and the remainder for general corporate purposes.

We adopted SFAS No. 142 in fiscal year 2002, which requires that goodwill and certain intangibles no longer be amortized, but instead tested for impairment at least annually. Therefore, there was no goodwill amortization in fiscal year 2002, compared to \$1,319,000 in fiscal year 2001. In our consolidated financial statements dated September 30, 2002, we recognized a goodwill impairment of \$5,974,000 due to the sale of our Finnish subsidiary in October 2002. We retain responsibility for the royalty obligations to Marconi after the sale of Neuromag Oy.

We adopted SFAS No. 144 in fiscal year 2002, which requires that adjustments to amounts previously reported in discontinued operations that are directly related to the disposal of component of an entity in a prior period be classified separately in the current period in discontinued operations. Pursuant to the sale of Neuromag Oy in October 2002, the resolution of liability obligations directly related to the sale resulted in our recognizing a net recorded gain of \$455,000 on the sale of our Finnish subsidiary for the fiscal year ended September 30, 2003.

#### Critical Accounting Policies

Our annual financial statements are prepared in conformity with generally accepted accounting principles in the United States ("GAAP"). The preparation of financial statements in conformity with GAAP requires our management to make estimates and assumptions that affect the reported amounts of assets, liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. Results for the fiscal years presented in this report are not necessarily indicative of results that may be reported for any interim period or for any other fiscal year.

We have identified a number of accounting policies that we believe are critical to an understanding of our financial statements and our discussion and analysis. Critical accounting policies are those that are most important to the portrayal of a company's financial condition and results, and that require management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain.

*Revenue Recognition.* Standard terms for product sales generally provide for payment of 30%-40% of the contracted purchase price upon placement of the order, 40%-50% upon shipment, and the remaining balance is due upon final customer acceptance. We recognize revenue at the time of customer acceptance. Service revenues following a sale are deferred and recognized over the one-year service period. Product service and contract revenues are recognized as the services are performed.

*Goodwill and Impairment of Long-Lived Assets.* We assess potential impairments to our long-lived assets when there is evidence that events or changes in circumstances have made recovery of the asset's carrying value unlikely. An impairment loss would be recognized when the sum of the expected future net cash flows is less than the carrying amount of the asset. Should an impairment exist, the impairment loss would be measured based on the excess of the carrying amount of the asset over the asset's fair value. We have recorded a goodwill asset that arose from the acquisition of Neuromag Oy in 1999. This asset is tested for possible impairment at least on an annual basis in accordance with SFAS No. 142, "Goodwill and Other Intangible Assets." In fiscal year 2002, we recorded an impairment of goodwill for \$5,974,000 due to the sale of our Finnish subsidiary, Neuromag Oy. See Note 1 of our consolidated financial statements for further discussion of SFAS No. 142. We had no goodwill at September 30, 2003.

#### Recently Issued Accounting Standards

In connection with our adoption of FASB interpretation No. 45 (FIN 45), "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Guarantees of indebtedness of Others," the following disclosures are made with respect to our product warranties.

We provide a limited warranty for our products. A provision for the estimated warranty cost is recorded at the time revenue is recognized. Costs of repair or replacement are established and charged to cost of sales at the time the related service is rendered. The amount of liability to be recorded is based on management's best estimates of future warranty costs after considering historical and projected product failure rates and product repair costs. Our standard product warranties are for one year, although in

some agreements, it may warrant products for periods in excess of one year. We have \$258,000 warranty accruals at September 30, 2002. The following table summarizes the activity related to product warranty accruals for the year ended September 30, 2003:

	<u>(in thousands)</u>
Balance at September 30, 2002	\$ 258
Increase in warranties related to system installation	512
Warranty activity in the period	<u>(216)</u>
Balance at September 30, 2003	<u>\$ 554</u>

We also undertake indemnification obligations in the ordinary course of business related to our products, the licensing of our software, and the issuance of securities. Under these arrangements, we may indemnify other parties such as business partners, customers, and underwriters, for certain losses suffered, claims of intellectual property infringement, negligence and intentional acts in the performance of services, and violations of laws including certain violations of securities laws. Our obligation to provide such indemnification in such circumstances would arise if, for example, a third party sued a customer for intellectual property infringement and we agreed to indemnify the customer against such claims. We are unable to estimate with any reasonable accuracy the liability that may be incurred pursuant to our indemnification obligations. Some of the factors that would affect this assessment include, but are not limited to, the nature of the claim asserted, the relative merits of the claim, the financial ability of the parties, the nature and amount of damages claimed, insurance coverage that we may have to cover such claims, the willingness of the parties to reach settlement, if any. Because of the uncertainty surrounding these circumstances, our indemnification obligations could range from immaterial to having a material adverse impact on our financial position and our ability to continue in the ordinary course of business.

In June 2002, the FASB issued SFAS No. 145, "Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections." This statement requires the classification of gains or losses from the extinguishments of debt to meet the criteria of Accounting Principles Board, or APB, Opinion No. 30 "Reporting the Results of Operations - Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions" before they can be classified as extraordinary in the income statement. Those companies that use debt extinguishments as a part of their risk management strategy are required to classify the gain or loss from extinguishments of debt as a part of operating income in the income statement. We adopted SFAS No. 145 during the quarter ended December 31, 2002 with no material impact.

In September 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities." This statement addresses financial accounting and reporting for costs associated with exit or disposal activities. This statement requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. The provisions of this statement are effective for exit or disposal activities that are initiated after December 31, 2002. We adopted SFAS No. 146 during the quarter ended December 31, 2002. There were no additional costs associated with the sale of Neuromag Oy other than the costs reflected in the financial statements and disclosed in Note 3, Sale of Finnish Subsidiary Neuromag Oy.

In November 2002, the FASB issued FASB Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others." This interpretation addresses the disclosures to be made by a guarantor in its interim and annual financial statements about its obligations under guarantees. This interpretation also clarifies the requirements related to the recognition of a liability by a guarantor at the inception of a guarantee for the obligations that the guarantor has undertaken in issuing that guarantee. Management has assessed the impact of this interpretation and believes it has no material impact.

In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation - Transition and Disclosure." This statement amends FASB statement No. 123 to provide accounting guidance related to stock based employee compensation. SFAS No. 123, as amended, encourages, but

does not require, companies to record compensation cost for stock-based employee compensation plans at fair value. We have chosen to continue to account for stock-based compensation using the intrinsic value method prescribed in APB Opinion No. 25, "Accounting for Stock Issued to Employees", and related interpretations for all periods presented. Accordingly, compensation cost for stock options is measured as the excess, if any, of the fair value of our stock at the date of the grant over the amount an employee must pay to acquire the stock.

The following table summarizes the impact on our net loss had compensation cost been determined based upon the fair value at the grant date for awards under the stock option plans consistent with the methodology prescribed under SFAS No. 123 (in thousands, except per share data):

	Years Ended September 30,	
	<u>2003</u>	<u>2002</u>
Net loss, as reported	\$ (3,708)	\$(10,038)
Add: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	10	109
Pro forma net loss	<u>\$ (3,718)</u>	<u>\$(10,147)</u>
Basic and diluted loss per share:		
As reported	\$ (0.018)	\$ (0.066)
Pro forma	\$ (0.018)	\$ (0.066)

We account for stock options granted to non-employees using the fair value method. Compensation expense for options granted to non-employees has been determined in accordance with Emerging Issues Task Force, or EITF, No. 96-18, "Accounting for Equity Instruments that are Issued to Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services", as the fair value of the consideration received or the fair value of the equity instruments issued, whichever is more reliably measurable. Compensation expense for options granted to non-employees is periodically remeasured as the underlying options vest and is recorded as expense and deferred compensation in the financial statements.

Holders of common stock are entitled to one vote per share. Basic earnings per share are computed by dividing net income or loss by the weighted average of common shares outstanding during the period. Diluted earnings per share reflects the potential dilution that could occur if securities or other contracts to issue common stock (warrants to purchase common stock and common stock options using the treasury stock method) were exercised or converted into common stock. Potential common shares in the diluted earnings per share computation are excluded when their effect would be antidilutive.

In January 2003, the FASB issued FASB Interpretation No. 46, "Consolidation of Variable Interest Entities." This interpretation clarifies the application of Accounting Research Bulletin No. 51, "Consolidated Financial Statement", to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. It further clarifies whether an entity shall be subject to consolidation according to the provisions of this interpretation, if by design, certain conditions exist. Management has assessed the impact of this interpretation and believes it has no material impact.

#### *Authoritative Pronouncements*

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristic of both Liabilities and Equities." This statement establishes standards for how an issuer classifies and measures in its statement of financial position certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in some circumstances) because that financial instrument embodies an obligation of the issuer. Management has assessed the impact of this statement and believes it has no material impact.

## ITEM 7. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

See our discussion under "Risks and Uncertainties - A substantial portion of our revenues comes for international customers" under Part I, Item 1 above.

Our consolidated financial statements as of September 30, 2003 and 2002, and for each of the two years in the period ended September 30, 2003 and 2002 and the reports of independent auditors are included in this report as listed in Item 13 (a) of this Form 10-KSB. Our selected quarterly financial data for our last two fiscal years is presented in Note 13 to our financial statements.

## ITEM 8. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None

## ITEM 8A. CONTROLS AND PROCEDURES.

### Evaluation of Disclosure Controls and Procedures

Our chief executive and principal financial officer has evaluated the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-14(c) and 15d-14(c)) as of the end of the period covered by this annual report on Form 10-KSB (the "Evaluation Date"). Based on such evaluation, he has concluded that, as of the Evaluation Date, our disclosure controls and procedures are effective in alerting him on a timely basis to material information relating to our company (including our consolidated subsidiaries) required to be included in reports filed or submitted under the Exchange Act.

### Changes in Internal Controls

Since the Evaluation Date, there have not been any significant changes in our internal controls, or in other factors that could significantly affect such controls. Therefore, no corrective actions were taken.

## PART III

## ITEM 9. DIRECTORS, EXECUTIVE OFFICERS AND CONTROL PERSONS OF THE REGISTRANT.

### Directors and Executive Officers

*D. Scott Buchanan, Ph.D.* (age 45) is the Company's president and chief executive officer and has served as a member of the board of directors since 1997. He joined the Company in 1986. He served as vice president, product operations from February 1992 through December 1996 and has served as president since December 1996, chief executive officer since March 1997 and principal financial officer since November 2000. Dr. Buchanan has been involved with product and applications development since joining the Company as a staff physicist. Dr. Buchanan received a B.S. in Physics from Lehigh University in Pennsylvania and an M.S. and Ph.D. in Physics from the University of Illinois. Dr. Buchanan was elected to the Company's board of directors in 1997. Dr. Buchanan is a citizen of the United States.

*Martin P. Egli* (age 51) is the chairman of the Company's board of directors and a member of the Company's audit committee. He has served since 1993 as a partner and principal of Swisspartners Investment Network AG ("Swisspartners"), a company that provides investment management, corporate finance and trust services. Swisspartners is a principal shareholder of 4-D. Mr. Egli is a director of several privately-held companies and was elected to the Company's board of directors in 1995. Mr. Egli is a citizen of Switzerland.

*Dr. Galleon Graetz* (age 49) is a member of the Company's board of directors. He served as clinical consultant and co-director of the internal medicine division of the Swiss Hospital School of Nursing from 1990 to 1997. Dr. Graetz is currently a senior partner of Care Net AG, a health consulting company, and currently involved as part of the management team at Medizinisches Zentrum Romerhof, a unique health care provider located in Zurich. Dr. Graetz was educated in internal medicine and radiology in

Switzerland and Israel. Dr. Graetz was elected to the Company's board of directors in 1998. Dr. Graetz is a citizen of Switzerland.

*Eugene C. Hirschkoff, Ph.D.* (age 61) is the Company's vice president, engineering. He joined the Company in 1971, and has served in many capacities in engineering, technology development and manufacturing. From 1990 through 1996, he served as director of clinical applications, managing the Company's research and development programs with its collaboration partners at the Scripps Clinic and Research Foundation and the University of California at San Francisco among others. Dr. Hirschkoff is responsible for the Company's FDA compliance programs. In December 1997 he was appointed vice president, engineering and in November 2000 he was appointed corporate secretary. Dr. Hirschkoff received his B.A. in Physics and Mathematics at Reed College in Oregon; M.A. in Physics at Harvard University; Ph.D. in Physics from the University of California, San Diego; MBA from the State University of California, San Diego and his J.D. from the University of San Diego. Dr. Hirschkoff is a citizen of the United States.

*Hans-Ueli Rihs* (age 60) is a member of the Company's board of directors. He served as international sales director and board member of PHONAK Holding, Ltd., Hearing Instruments and Systems for the Hard of Hearing, in Stafa, Switzerland from 1976 to 1999. Since 2000 he has been an independent entrepreneur and investor. He currently serves as a board member of PHONAK, Swisspartners and Mespas Ltd. He was elected to the Company's board of directors in 2001 in connection with the purchase by Swisspartners of 14,751,153 shares of the Company's common stock in a private placement transaction. Mr. Rihs is a citizen of Switzerland.

*Kenneth C. Squires, Ph.D.* (age 59) is the Company's vice president, marketing. He joined the Company in September 1988. Since that time he has held various positions as director of clinical applications and director of neuroscience applications—marketing and was appointed vice president, marketing in December 1996. Dr. Squires received his B.S. and M.S. degrees in Aeronautical Engineering at the University of Minnesota and his Ph.D. in Experimental Psychology from the University of California, San Diego. Dr. Squires is a citizen of the United States.

*Martin Velasco* (age 48) is a member of the Company's board of directors and audit committee. He is an entrepreneur with extensive experience in the electronic communications industry, combining the experience of large international companies with high-tech start-ups. In the last three years he also has developed significant activities in the medical and biotech areas. Martin Velasco holds an engineering degree in electronics, a postgraduate degree in computer science from the EPFL Lausanne and an MBA from INSEAD. Martin Velasco serves on several boards of high-tech start-ups in Europe and United States, as well as venture and investment funds. Mr. Velasco was elected to our board of directors in 2000. He is a member of the Business Steering Committee of the Global Business Dialog for Electronic Commerce, member of the World Economic Forum Digital Divide Task Force and Chairman of the Investment Committee of the Positive Fund. Mr. Velasco is also the Chairman of the charity Infantia Foundation he founded in 1999, which has the objective to help children in the developing world. Mr. Velasco is a citizen of Spain.

#### Audit Committee Financial Expert

We have one financial expert serving on our Audit Committee, Martin Egli. Mr. Egli is an affiliate of the Company through control of over 10% of our shares of common stock.

#### Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires our officers, directors and persons who own more than 10% of a registered class of our equity securities, to file reports of ownership and changes in ownership with the SEC and the NASDAQ. Officers, directors and greater than 10% shareholders are required by SEC regulation to furnish us with copies of all Section 16(a) forms they file.

Based solely on review of the copies of Forms 3, 4 and 5 and amendments thereto furnished to us, we believe that, during the period from October 1, 2002 through September 30, 2003, all Section 16(a) filing requirements applicable to its officers, directors and greater than 10% beneficial owners were met, though not in a timely manner as set forth as follows.

<u>Name</u>	<u># of Late Reports</u>	<u># of Transactions</u>	<u>Required Forms Filed</u>
Martin P. Egli	3	3	Yes
Swisspartners	2	2	Yes
Martin Velasco	2	2	Yes
Sequoia International	1	1	Yes
Rose Graetz	1	1	Yes
Enrique Maso	1	1	Yes

#### Code of Ethics

We have adopted and attached, in Exhibit 99 of this Form 10-KSB, our Code of Ethics consistent with disclosure required by section 406 of the Sarbanes-Oxley Act of 2002.

#### ITEM 10. EXECUTIVE COMPENSATION.

##### Summary of Cash and Certain Other Compensation

The following table provides certain summary information concerning the compensation earned by the named executive officers in Item 9 (determined as of the end of the last fiscal year) for services rendered in all capacities to the Company and its subsidiaries for the fiscal years ended September 30, 2003, 2002 and 2001:

Summary Compensation Table Annual Compensation					<u>All Other Compensation</u>
<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus (\$)</u>		<u>(\$)</u>
D. Scott Buchanan (1) .....	2003	\$ 165,000	\$ 7,000		\$ 5,792
President, Chief Executive Officer	2002	\$ 190,000	\$ 0		\$ 5,792
	2001	\$ 190,000	\$ 0		\$ 5,792
Eugene C. Hirschhoff (2).....	2003	\$ 130,000	\$ 12,000		\$ 1,576
Vice President, Engineering	2002	\$ 144,000	\$ 5,000		\$ 1,576
	2001	\$ 136,500	\$ 0		\$ 1,576
Kenneth C. Squires (3).....	2003	\$ 134,000	\$ 12,000		\$ 1,701
Vice President, Marketing	2002	\$ 155,000	\$ 10,000		\$ 1,701
	2001	\$ 137,200	\$ 19,000		\$ 1,701

- (1) "Bonus" in 2003 for Dr. Buchanan represents a payment earned under an incentive bonus program. "All Other Compensation" for Dr. Buchanan represents premiums paid by the Company on Dr. Buchanan's behalf for life and long-term disability insurance.
- (2) "Bonus" in 2003 and 2002 for Dr. Hirschhoff represents a payment earned under an incentive bonus program. "All Other Compensation" for Dr. Hirschhoff represents premiums paid by the Company on Dr. Hirschhoff's behalf for life and long-term disability insurance.
- (3) "Bonus" in 2003, 2002 and 2001 for Dr. Squires' represents a payment earned under an incentive bonus program. "All Other Compensation" for Dr. Squires represents premiums paid by the Company on Dr. Squires' behalf for life and long-term disability insurance.

##### Stock Options and Stock Appreciation Rights

No stock options or stock appreciation rights were granted to the named executive officers during the 2003 fiscal year.

##### Option Exercises and Holdings

The following table provides information, with respect to the named executive officers, concerning the exercise of stock options during the 2003 fiscal year and unexercised options held as of the end of that

fiscal year. No shares were acquired on exercise of options by the named executive officers during the fiscal year ended September 30, 2003. None of the named executive officers exercised any stock appreciation rights during the 2003 fiscal year and no stock appreciation rights were held by the named executive officers at the end of the 2003 fiscal year. None of the stock options held by the named executive officers were in-the-money at the end of the 2003 fiscal year.

Aggregated Option/SAR Exercises in Last Fiscal Year and FY-End Option/SAR Values						
Name	Shares Acquired on Exercise (#)	Value Realized (\$)	Number of		Value of	
			Unexercised Options		Unexercised	
			at FY-End (#)		in-the-Money Options/SARs	
			Exercisable	Unexercisable	Exercisable	Unexercisable
D. Scott Buchanan	0	\$ 0	1,673,709	0	\$ 0	\$ 0
Eugene C. Hirschhoff	0	\$ 0	740,000	0	\$ 0	\$ 0
Kenneth C. Squires	0	\$ 0	725,400	0	\$ 0	\$ 0

(1) Calculated on the basis of the fair market value of the underlying securities at fiscal year end on September 30, 2003 (\$.06) minus the exercise price.

#### Long-Term Incentive Plan

No shares or other rights were granted under a long-term incentive plan to the named executive officers during the 2003 fiscal year.

### **ITEM 11. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.**

#### Principal Shareholders and their Security Ownership

The following are the only persons known to 4-D to own beneficially, as of November 6, 2003, more than five percent (5%) of the outstanding shares of our common stock.

*Rose Rita Graetz*, a private investor, is a Swiss citizen where she has resided all of her life and has been retired since 1980. Mrs. Graetz has no active role at 4-D.

*Enrique Maso*, a private investor, is a former large industrialist in Europe and the former mayor of Barcelona. He is currently the chairman of the board of Electronic Data Systems in Spain, a position he has held since 1983. He received a masters degree in Industrial Engineering Management from New York University and a doctorate in Engineering from the Politechnic College of Barcelona. Dr. Maso was elected to the Company's board of directors in 1995 and served as chairman of the board of directors from September 1997 to March 2001.

*Swisspartners Investment Network AG*, a Swiss company, provides investment management, corporate finance and trust services. Its principal place of business is located at Am Schanzengraben 23, Zurich, Switzerland.

*International Sequoia Investments Ltd.* is a private equity investment company. Its principal place of business is located at St James Court, Suite 308, St Denis Street, Port Louis, Republic of Mauritius.

Name and Address of Beneficial Owner <sup>(1)</sup>	Shares Beneficially Owned	
	Number <sup>(1)</sup>	Percent <sup>(2)</sup>
Enrique Maso .....	63,961,696 <sup>(3)</sup>	28.83%
Europa Residence Place des Moulins 98 000 Montecarlo, Monaco		
Rose Rita Graetz .....	62,187,713 <sup>(4)</sup>	28.03%
Im Grut Meilen, CH-8706, Switzerland		



Swisspartners Investment Network AG..... Postfach 970 Am Schanzengraben 23 Zurich, CH-8039, Switzerland +41-1-285-7600	35,456,394 <sup>(5)</sup>	15.98%
International Sequoia Investments Ltd..... St. James Court, Suite 308, St. Denis Street Port Louis, Rep. of Mauritius +23-0-211-6242	22,882,273 <sup>(6)</sup>	10.31%

(1) Except as indicated in the footnotes to this table, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them, subject to community property laws, where applicable.

(2) Percentage of ownership is calculated pursuant to SEC Rule 13d-3(d)(1).

(3) Consists of 62,890,863 shares beneficially owned by Dr. Maso and 1,070,833 shares owned by MATRUST, S.L. Dr. Maso is a majority shareholder in MATRUST.

(4) Consists of 61,587,713 shares beneficially owned by Mrs. Graetz and options to purchase 600,000 shares of common stock held by her son, Galleon Graetz, which are exercisable or exercisable within 60 days after November 6, 2003.

(5) Consists of 28,982,120 shares owned by Swisspartners Investment and 6,474,274 shares owned by Mr. Egli. Mr. Egli is a managing director of Swisspartners Investment Network AG.

(6) Consists of 22,882,273 shares owned by International Sequoia Investments Ltd. Mr. Velasco is a major investor in Sequoia.

#### Management and their Security Ownership

The following table sets forth the beneficial ownership of common stock of the Company as of November 6, 2003 by each director and by our current chief executive officer, each of the other two executive officers whose compensation exceeded \$100,000 during fiscal year 2003 and by all current directors and executive officers of the Company as a group. No other executive officer's compensation exceeded \$100,000 during fiscal year 2003. All shares are subject to the named person's sole voting and investment power except where otherwise indicated.

Name and Address of Beneficial Owner <sup>(1)</sup>	Shares Beneficially Owned	
	Number <sup>(1)</sup>	Percent <sup>(2)</sup>
D. Scott Buchanan, Ph.D. .... 9727 Pacific Heights Blvd San Diego, CA 92121 (858) 453-6300	1,706,501 <sup>(3)</sup>	*
Martin P. Egli Am Schanzengraben 23 Zurich, CH-8039, Switzerland +41-1-285-7600	35,456,394 <sup>(4)</sup>	15.98%
Martin Velasco .....	22,882,273 <sup>(5)</sup>	10.3%
Galleon Graetz .....	62,187,713 <sup>(6)</sup>	*
Eugene C. Hirschhoff, Ph.D. .... 9727 Pacific Heights Blvd San Diego, CA 9212 (858) 453-6300	807,050 <sup>(7)</sup>	*
Kenneth C. Squires, Ph.D. .... 9727 Pacific Heights Blvd San Diego, CA 9212 (858) 453-6300	794,735 <sup>(8)</sup>	*
Hans-Ueli Rihs	1,230,769	*

Am Schanzengraben 23  
Zurich, CH-8039, Switzerland  
+41-1-285-7600

All current directors and executive officers as a group (7 persons) <sup>(9)</sup> .....	125,065,435	54.94%
--	-------------	--------

\* Less than 1%.

- (1) Except as indicated in the footnotes to this table, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them, subject to community property laws, where applicable. Share ownership in each case includes shares issuable on exercise of certain outstanding options as described in the footnotes below.
- (2) Percentage of ownership is calculated pursuant to SEC Rule 13d-3d(1).
- (3) Shares beneficially owned include options to purchase 1,673,709 shares of common stock held by Dr. Buchanan, which are now exercisable or exercisable within 60 days after November 6, 2003.
- (4) Consists of 6,474,274 shares owned by Mr. Egli and 28,982,120 shares owned by Swisspartners. Mr. Egli is a managing director of Swisspartners Investment Network AG.
- (5) Consists of 22,882,273 shares owned by International Sequoia Investments Ltd. Mr. Velasco is a major investor in Sequoia.
- (6) Shares beneficially owned include options to purchase 600,000 shares of common stock held by Dr. Graetz, which are now exercisable or exercisable within 60 days after November 6, 2003 and 61,587,713 shares held by his mother, Rose Rita Graetz.
- (7) Shares beneficially owned include options to purchase 740,000 shares of common stock held by Dr. Hirschkoff, which are now exercisable or exercisable within 60 days after November 6, 2003.
- (8) Shares beneficially owned include options to purchase 725,400 shares of common stock held by Dr. Squires, which are now exercisable or exercisable within 60 days after November 6, 2003.
- (9) Shares beneficially owned include all shares held by entities affiliated with certain directors as described in the footnotes above and options to purchase 3,739,109 shares of common stock held by directors and executive officers as a group which are now exercisable or exercisable within 60 days after November 6, 2003.

## ITEM 12. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

In March 2001, we entered into a consultancy agreement with Mr. Fernandez Atela, who was then serving as chairman of our board of directors. Under the original agreement terms, Mr. Fernandez Atela was entitled to receive a consultancy fee of \$250,000 per year, payable monthly, an administration reimbursement expense of up to \$60,000 per year, payable monthly, up to 3% of the net financing we received as a result of Mr. Atela's services and up to 5% of the net sales we received for concluding any MEG sales in Spain. The agreement had an initial term of one year and could be cancelled monthly by written notice. Under the original agreement terms, Mr. Fernandez Atela was also entitled to receive a termination fee of \$187,500 at the termination of the agreement. In April 2002 Mr. Fernandez reduced his billing for administration reimbursement to \$0 per year. Mr. Fernandez Atela received compensation in the amount of \$314,291 representing consulting fees during the fiscal year ended September 30, 2002. Effective October 2002 Mr. Fernandez resigned from the board of directors. In January 2003 we reached an agreement with Mr. Fernandez in which he accepted a settlement of \$80,000 cash plus 1,500,000 shares of our common stock in exchange for cancellation of his contract and all payments owed totaling approximately \$66,000.

In November 2002, we sold 100% of our shares in our wholly-owned subsidiary, Neuromag Oy, to Vaandramolen Holding BV for \$4,000,000. We used \$3,694,000 of the proceeds from the sale to fully pay the remaining debt outstanding under a loan from AIG Bank, which had been used to fund our acquisition of Neuromag in December 1999. Martin Egli, a member of our board of directors, also serves on AIG Bank's board of directors.

In April 2002, an additional 6,153,845 shares of our common stock were issued on terms previously authorized in a private placement in accordance with Section 4(2) of the Securities Act of 1933, as amended, in exchange for cash in the aggregate sum of \$800,000. The participating investors included International Sequoia Investments Ltd., of which our board member Martin Velasco is a major investor,

Swisspartners Investment Network AG, of which our board member Martin Egli is a senior partner, and our board members Enrique Maso and Hans-Ueli Rihs.

In December 2002, an additional 60,000,000 shares of our common stock was issued to Swisspartners Investment Network AG in a private placement transaction pursuant to Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended, in exchange for cash in the aggregate sum of \$3,000,000, or \$0.05 per share.

We have entered into an arrangement with Dr. Graetz, a member of our board of directors, pursuant to which, in addition to expenses incurred, he is to receive a \$10,000 retainer per month in exchange for his services in establishing insurance reimbursement and market development for MEG in Europe. This arrangement is on a month-to-month basis and may be cancelled at any time at our sole discretion. Dr. Graetz received compensation in the amount of \$180,000 during the fiscal year ended September 30, 2003.

On or about November 5, 2002, we obtained a new line of credit with AIG Bank for \$1,000,000. The interest on the line of credit is 4.17%. Originally the line of credit was due and payable November 5, 2003; however, in January 2003 the maturity of the line of credit was extended to May 5, 2004. The proceeds were used to pay off four unsecured loans we obtained during fiscal year 2003 as described below, and an accounts payable in the amount of \$120,000 due to Carenet AG, a company owned by Dr. Galleon Graetz, a member of our board of directors. The four unsecured loans included: (a) two unsecured loans from MATRUST, S.L. a shareholder of the Company, for \$225,000. (Dr. Enrique Maso, a principal shareholder of the Company and a former member of our board of directors, is a majority shareholder of MATRUST, S.L.); (b) an unsecured loan from a principal shareholder of the Company, Swisspartners Investment Network AG, for \$100,000 (Mr. Egli, a member of our board of directors, is a senior partner of Swisspartners Investment network AG); and (c) an unsecured loan from another principal shareholder of the Company, International Sequoia Investment Ltd., for \$100,000. All four loans were repaid in full with no interest charged. Mr. Velasco, a member of our board of directors, is a major investor in International Sequoia Investment Ltd. In addition to Mr. Egli's personal guarantee of \$500,000, the respective parties pledged the sum of these amounts, or \$570,000, as collateral against the loan from AIG Bank. The remaining \$430,000 from the AIG line of credit was used for general corporate purposes.

#### **ITEM 13. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K.**

(a) The following documents are filed as part of this report:

(1) Financial Statements

Report of Independent Accountants .....	38
Consolidated Balance Sheets at September 30, 2003 and 2002 .....	39
Consolidated Statements of Operations for the two years ended September 30, 2003 .....	40
Consolidated Statements of Shareholders' Equity (Deficit) for the two years ended September 30, 2003 .....	41
Consolidated Statements of Cash Flows for the two years ended September 30, 2003.....	42
Notes to Consolidated Financial Statements .....	44

(2) Financial Statement Schedule

Schedule II - Consolidated Valuation and Qualifying Accounts.....	56
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All other schedules are omitted because they are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

(3) Exhibits

The Exhibits listed in the accompanying Exhibit Index are filed or incorporated by reference as part of this report.

(b) Reports on Form 8-K during the fourth quarter:

None.

(c) Exhibits

The following documents are exhibits to this Form 10-KSB:

**Exhibit**

<b>No.</b>	<b>Description of Document</b>
3.1	<p>Seventh Amended and Restated Articles of Incorporation</p> <p>This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 3.1 in the Quarterly Report on Form 10-QSB for period ended March 31, 2003, filed May 15, 2003.</p>
3.2	<p>Restated By-Laws</p> <p>This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 3.2 in the Registration Statement filed pursuant to the Securities Act of 1933 on Form S-1 Registration Statement No. 33-29095, filed June 7, 1989, as amended by Amendment No. 1, filed June 13, 1989, Amendment No. 2, filed July 21, 1989 and Amendment No. 3, filed July 28, 1989.</p>
10.1	<p>Loan Agreement dated June 28, 2000 between 4-D and BDN, a company based in Spain.</p> <p>This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.1 in the Quarterly Report on Form 10-Q for period ended June 30, 2000, filed August 14, 2000.</p>
10.2	<p>Loan Agreement dated June 28, 2000 between 4-D and BDN, a company based in Spain.</p> <p>This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.2 in the Quarterly Report on Form 10-Q for period ended June 30, 2000, filed August 14, 2000.</p>
10.3	<p>The Company's 1997 Stock Option Plan, as amended.</p> <p>This exhibit was previously filed as part of, and is hereby incorporated by reference to, the appendix of the Proxy Statement filed pursuant to Section 14(a) of the Securities Exchange Act of 1934 on Schedule 14A dated January 18, 2002 filed on January 22, 2002.</p>
10.4	<p>The Company's 1987 Stock Option Plan, as amended.</p> <p>This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.6 in the Fiscal 1992 Form 10-K.</p>
10.5	<p>Form of Incentive Stock Option and related exercise documents.</p> <p>This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.7 in the Fiscal 1992 Form 10-K.</p>
10.6	<p>The Company's 2002 Employee Stock Purchase Plan.</p> <p>This exhibit was previously filed as part of, and is hereby incorporated by reference to, the appendix of the Proxy Statement filed pursuant to Section 14(a) of the Securities Exchange Act of 1934 on Schedule 14A dated January 18, 2002 filed on January 22, 2002.</p>
10.7	<p>Form of Common Stock Purchase Agreement.</p> <p>This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 99.1 in our current report on Form 8-K filed on May 11, 2001, as subsequently amended.</p>
10.8	<p>Letter Agreement dated on or about April 25, 2001 between 4-D and AIG Private Bank, Ltd.</p> <p>This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 99.2 in our current report on Form 8-K filed on May 11, 2001, as subsequently amended.</p>
10.9	<p>Amendment to Loan Agreement dated on or about April 26, 2001 between 4-D and AIG Private Bank, Ltd.</p> <p>This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 99.3 in our current report on Form 8-K filed on May 11, 2001, as subsequently amended.</p>

- 10.10 Full Cancellation of Indebtedness effective as of April 26, 2001 between 4-D and Swisspartners Investment Network Ltd.  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 99.4 in our current report on Form 8-K filed on May 11, 2001, as subsequently amended.
- 10.11 Full Cancellation of Indebtedness effective as of April 26, 2001 between 4-D and Swisspartners Investment Network Ltd.  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 99.5 in our current report on Form 8-K filed on May 11, 2001, as subsequently amended.
- 10.12 Full Cancellation of Indebtedness effective as of April 26, 2001 between 4-D and MATRUST, S.L.  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 99.6 in our current report on Form 8-K filed on May 11, 2001, as subsequently amended.
- 10.13 Full Cancellation of Indebtedness effective as of April 26, 2001 between 4-D and International Sequoia Investments Limited.  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 99.7 in our current report on Form 8-K filed on May 11, 2001, as subsequently amended.
- 10.14 Full Cancellation of Indebtedness effective as of April 26, 2001 between 4-D and Amaldos, S.A.  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 99.8 in our current report on Form 8-K/A filed on June 20, 2001, as subsequently amended.
- 10.15 Real Estate Lease dated February 18, 2003, between the Company and The Irvine Company.  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.2 in the Quarterly Report on Form 10-QSB for period ended March 31, 2003, filed May 15, 2003.
- 10.16 Form of Purchase Option Agreement, as amended.  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.64 in the Registration Statement filed pursuant to the Securities Act of 1933 on Form S-1, Registration Statement No. 33-81294, filed July 8, 1994.
- 10.17 Joint Venture Agreement with Magnesensors.  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.77 in Fiscal 1998 Form 10-K.
- 10.18 Real estate lease dated March 3, 2000 between Neuromag Oy and Instrumentarium and an English language summary of such lease.  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.78 in Fiscal 2000 Form 10-K.
- 10.19 Consultancy Agreement between Felipe Fernandez Atela and 4-D dated April 2, 2001.  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.79 in Fiscal 2001 Form 10-K.
- 10.20 Form of Common Stock Purchase Agreement.  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.1 in the Quarterly Report on Form 10-Q for period ended March 31, 2002, filed May 15, 2002.
- 10.21 Elekta Agreement dated February 1, 2002 (with certain confidential portions omitted).  
This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.2 in the Quarterly Report on Form 10-Q for period ended March 31, 2002, filed May 15, 2002.

10.22 Description of Purchase of Services of Dr. Galleon Graetz

This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.23 in Fiscal 2002 Form 10-K.

10.23 Share Purchase Agreement dated October 18, 2002 between 4-D and Vaandramolen Holding BV

This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 99.1 to the Company's Current Report on Form 8-K, filed October 30, 2002.

10.24 Form of Common Stock Purchase Agreement

This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.2 in the Quarterly Report on Form 10-QSB for period ended December 31, 2002, filed February 14, 2003.

10.25 Letter Agreement dated on or about November 5, 2003 between 4-D and AIG Private Bank, Ltd.

This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.2 in the Quarterly Report on Form 10-QSB for period ended December 31, 2002, filed February 14, 2003.

10.26 Letter Agreement dated on or about January 16, 2003 between 4-D and AIG Private Bank, Ltd.

This exhibit was previously filed as part of, and is hereby incorporated by reference to, Exhibit 10.1 in the Quarterly Report on Form 10-QSB for period ended March 31, 2003, filed May 15, 2003.

14 Code of Ethics

23 Consent of Swenson Advisors, LLP.

24 Certified Power of Attorney

31 Rule 13a-14(a)/15d-14(a) Certification (Section 1350 Certification)

32 Section 906 Certification of Chief Executive Officer and Principal Financial Officer

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.**

Audit Fees

The aggregate fees billed by Swenson Advisors, LLP for professional services rendered for the audit of the Company's annual financial statements for fiscal years 2003 and 2002 and the reviews of the financial statements included in the Company's Form 10-QSB and Form 10-Q for such fiscal years were \$53,000 and 79,000, respectively.

Audit Related Fees

There were no fees billed by Swenson Advisors, LLP for professional services described in Paragraph (c)(4)(ii) of Rule 2-01 of Regulation S-X for fiscal years 2003 and 2002.

Tax Fees

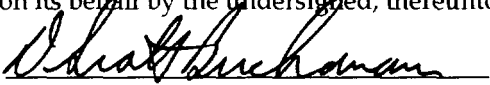
The aggregate fees billed for fiscal years 2003 and 2002 for professional services rendered by Swenson Advisors, LLP for tax compliance, tax service and tax planning were \$10,000 and \$9,000, respectively.

All Other Fees

The aggregate fees billed by Swenson Advisors, LLP for professional services rendered, other than as stated under the captions Audit Fees, Audit Related Fees and Tax Fees above, were \$9,000 and \$7,000 for fiscal years 2003 and 2002, respectively. The Audit Committee considers the provision of these services to be compatible with maintaining the independence of Swenson Advisors, LLP.

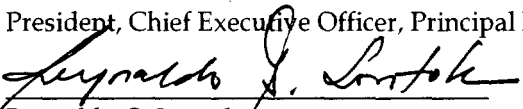
## SIGNATURES

In accordance with Section 13 or 15(d) of the Exchange Act, the registrant has caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

By  December 19, 2003  
D. Scott Buchanan  
Date  
President, Chief Executive Officer, Principal Financial Officer

In accordance with the Exchange Act, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By  December 19, 2003  
D. Scott Buchanan  
Date  
President, Chief Executive Officer, Principal Financial Officer, Director

By  December 19, 2003  
Reynaldo G. Lontok  
Date  
Controller

By \* December 19, 2003  
Martin P. Egli, Chairman of the Board, Director  
Date

By \* December 19, 2003  
Galleon Graetz, Director  
Date

By \* December 19, 2003  
Han-Ueli Rihs, Director  
Date

By \* December 19, 2003  
Martin Velasco, Director  
Date

\*By  December 19, 2003  
D. Scott Buchanan  
Date  
(Attorney-in-Fact)

Supplemental Information to be furnished with reports filed pursuant to Section 15(d) of the Exchange Act by Non-reporting Issuers.

The Company's annual report and proxy materials shall be furnished to shareholders subsequent to the filing of this Form 10-KSB.

## **REPORT OF INDEPENDENT ACCOUNTANTS**

Board of Directors and Shareholders  
4-D Neuroimaging

We have audited the accompanying consolidated balance sheets of 4-D Neuroimaging (a California corporation) and subsidiary as of September 30, 2003 and 2002, and the related consolidated statements of operations, shareholders' equity (deficit), and cash flows for the years ended September 30, 2003 and 2002, respectively. Our audit also included the consolidated financial statement schedule. These consolidated financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of 4-D Neuroimaging and subsidiary as of September 30, 2003 and 2002, respectively, and the results of its operations and its cash flows for the years ended September 30, 2003 and 2002, respectively, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the related consolidated financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly in all material respects the information set forth therein.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, the Company has historically reported significant net losses and negative working capital and serious liquidity concerns. These matters raise substantial doubt about the Company's ability to continue as a going concern. The Company may not be able to acquire adequate funding for its continued operations. The consolidated financial statements do not include any adjustments as to the recoverability and classification of assets and liabilities that might result should the Company be unable to continue as a going concern.

/s/ SWENSON ADVISORS, LLP  
San Diego, California  
December 17, 2003



**4-D NEUROIMAGING  
CONSOLIDATED BALANCE SHEETS**

	September 30,	
	2003	2002
<b>ASSETS</b>		
Cash and cash equivalents	\$ 681,376	\$ 166,697
Restricted cash	-	17,310
Accounts receivable, less allowance for doubtful accounts of \$284,452 in 2003 and \$216,124 in 2002	422,255	365,917
Inventories	2,935,520	4,137,919
Prepaid expenses and other current assets	<u>507,904</u>	<u>200,399</u>
Total current assets	4,547,055	4,888,242
Property and equipment, net	155,542	607,062
Goodwill, net	-	2,203,549
Deferred income taxes	-	588,175
Other assets	57,314	226,615
<b>TOTAL ASSETS</b>	<u>\$ 4,759,911</u>	<u>\$ 8,513,643</u>
<b>LIABILITIES AND SHAREHOLDERS' DEFICIT</b>		
Notes payable	\$ 1,000,000	\$ 4,040,000
Accounts payable	1,780,544	1,903,159
Accrued liabilities	996,930	1,110,685
Accrued salaries and employee benefits	375,136	498,311
Customer deposits	1,640,835	535,749
Deferred revenues	150,715	341,843
Current portion of royalty obligation	312,000	312,000
Current portion of capital lease obligations	<u>7,637</u>	<u>13,952</u>
Total current liabilities	6,263,797	8,755,699
Note payable	-	521,614
Royalty obligation, net of current portion	1,128,041	1,025,706
Customer deposits	1,107,518	1,107,518
Deferred revenues	180,417	376,727
Capital lease obligations, net of current portion	<u>-</u>	<u>7,637</u>
Total liabilities	<u>8,679,773</u>	<u>11,794,901</u>
<b>COMMITMENTS AND CONTINGENCIES</b>		
<b>SHAREHOLDERS' DEFICIT</b>		
Common stock -- no par value; 500,000,000 shares authorized; 221,859,748 and 160,338,589 are issued and outstanding in 2003 and 2002, respectively	117,761,884	114,692,985
Additional paid-in capital	3,007,500	3,007,500
Accumulated deficit	(124,689,246)	(120,951,599)
Accumulated other comprehensive loss	-	(30,144)
Total shareholders' deficit	<u>(3,919,862)</u>	<u>(3,281,258)</u>
<b>TOTAL LIABILITIES &amp; SHAREHOLDERS' DEFICIT</b>	<u>\$ 4,759,911</u>	<u>\$ 8,513,643</u>

See Notes to Consolidated Financial Statements

**4-D NEUROIMAGING**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	Years Ended September 30,	
	2003	2002
<b>REVENUES</b>		
Product sales	\$ 1,917,268	\$ 4,490,569
Product services	<u>891,561</u>	<u>812,020</u>
	<u>2,808,829</u>	<u>5,302,589</u>
<b>COST OF REVENUES</b>		
Product	2,468,737	4,316,833
Product services	<u>628,458</u>	<u>840,676</u>
	<u>3,097,195</u>	<u>5,157,509</u>
<b>GROSS MARGIN</b>	<u>(288,366)</u>	<u>145,080</u>
<b>OPERATING EXPENSES</b>		
Research and development	882,763	1,022,178
Marketing and sales	1,520,416	1,747,460
General and administration	<u>1,623,762</u>	<u>1,616,210</u>
	<u>4,026,941</u>	<u>4,385,848</u>
<b>OPERATING LOSS</b>	(4,315,307)	(4,240,768)
Interest expense	(391,035)	(24,726)
Interest income	3,779	4,054
Other income, net	<u>540,767</u>	<u>24,004</u>
<b>LOSS BEFORE PROVISION FOR INCOME TAXES AND DISCONTINUED OPERATIONS</b>	(4,161,796)	(4,237,436)
Provision for income taxes	<u>800</u>	<u>800</u>
<b>NET LOSS FROM OPERATIONS</b>	(4,162,596)	(4,238,236)
<b>DISCONTINUED OPERATIONS</b>		
Income (loss) from discontinued operations	<u>455,093</u>	<u>(5,799,886)</u>
<b>NET LOSS</b>	<u>\$ (3,707,503)</u>	<u>\$ (10,038,122)</u>
<b>BASIC AND DILUTED NET INCOME (LOSS) PER SHARE</b>		
Loss from operations	\$ (0.020)	\$ (0.028)
Earnings (loss) from discontinued operations	<u>0.002</u>	<u>(0.038)</u>
Loss per share	<u>\$ (0.018)</u>	<u>\$ (0.066)</u>
Weighted average number of common shares outstanding	<u>206,518,249</u>	<u>152,788,459</u>
<b>COMPREHENSIVE LOSS:</b>		
Net loss	\$ (3,707,503)	\$ (10,038,122)
Cumulative translation adjustment	-	204,639
Comprehensive loss	<u>\$ (3,707,503)</u>	<u>\$ (9,833,483)</u>

See Notes to Consolidated Financial Statements

**4-D NEUROIMAGING**  
**CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (DEFICIT)**

	Common Shares	Stock Amount	Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total
<b>BALANCE, SEPTEMBER 30, 2001</b>	145,018,629	\$ 112,699,555	\$ 3,007,500	\$ (110,913,477)	\$ (234,783)	\$ 4,558,795
Exercise of stock options	200,000	30,000				30,000
Sale of stock under ESPP	43,038	3,430				3,430
Sale of stock	15,076,922	1,960,000				1,960,000
Net loss				(10,038,122)		(10,038,122)
Translation adjustments					204,639	204,639
Comprehensive loss						(9,833,483)
<b>BALANCE, SEPTEMBER 30, 2002</b>	160,338,589	\$ 114,692,985	\$ 3,007,500	\$ (120,951,599)	\$ (30,144)	\$ (3,281,258)
Exercise of stock options	1,500,000	68,000				68,000
Sale of stock under ESPP	21,159	899				899
Sale of stock	60,000,000	3,000,000				3,000,000
Net loss				(3,707,503)		(3,707,503)
Translation adjustments				(30,144)	30,144	-
Comprehensive loss						(3,707,503)
<b>BALANCE, SEPTEMBER 30, 2003</b>	<u>221,859,748</u>	<u>\$ 117,761,884</u>	<u>\$ 3,007,500</u>	<u>\$ (124,689,246)</u>	<u>\$ -</u>	<u>\$ (3,919,862)</u>

See Notes to Consolidated Financial Statements

**4-D NEUROIMAGING**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Years ended September 30,	
	2003	2002
<b>OPERATING ACTIVITIES</b>		
Net loss	\$ (3,707,503)	\$ (10,038,122)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Impairment of goodwill	-	5,973,850
Depreciation	99,550	285,553
Amortization of minimum royalty obligation	102,335	97,795
Gain on sale of Neuromag Oy	(455,093)	-
Changes in operating assets and liabilities, excluding effects of acquisition:		
Restricted cash	17,310	528,344
Accounts receivable	(56,338)	2,769,679
Inventories	527,399	3,172,816
Prepaid expenses and other current assets	(307,505)	698,066
Payment of royalty obligation	-	(194,317)
Other assets	(5,007)	34,849
Accounts payable	(104,794)	(453,914)
Accrued liabilities	(220,540)	(161,581)
Accrued salaries and employee benefits	(123,175)	(60,130)
Customer deposits	1,105,086	(5,923,736)
Deferred revenue	(387,438)	480,258
Interest payable	106,785	33,403
Net cash used in operating activities	<u>(3,408,928)</u>	<u>(2,757,187)</u>
<b>INVESTING ACTIVITIES</b>		
Payments on capital leases	(13,952)	(11,281)
Payments for property and equipment	(23,340)	(164,487)
Proceeds from sale of Neuromag Oy	4,000,000	-
Net cash provided by (used in) investing activities	<u>3,962,708</u>	<u>(175,768)</u>
<b>FINANCING ACTIVITIES</b>		
Proceeds from issuance of common stock	3,000,000	1,993,430
Proceeds from notes payable	1,000,000	723,244
Proceeds from employee stock purchase plan	899	-
Repayment of notes payable	(4,040,000)	-
Net cash provided by (used in) financing activities	<u>(39,101)</u>	<u>2,716,674</u>
Effect of exchange rate changes	-	204,639
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	514,679	(11,642)
<b>CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR</b>	<u>166,697</u>	<u>178,339</u>
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>	<u>\$ 681,376</u>	<u>\$ 166,697</u>

See Notes to Consolidated Financial Statements

**4-D NEUROIMAGING**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

**SCHEDULE OF NON-CASH INVESTING AND FINANCING ACTIVITIES**

	Years ended September 30,	
	2003	2002
Stock exchange for professional services	<u>\$ 68,000</u>	<u>\$ -</u>
SUPPLEMENTAL DISCLOSURES:		
Cash paid for interest	<u>\$ 93,239</u>	<u>\$ -</u>
Cash paid for income sales	<u>\$ 800</u>	<u>\$ 800</u>

See Notes to Consolidated Financial Statements

**4-D Neuroimaging**  
**Notes to Consolidated Financial Statements**

**Note 1. Summary of Organization and Significant Accounting Policies**

*Organization*

4-D Neuroimaging was founded in 1970 as a California corporation and is engaged primarily in the business of developing, manufacturing and selling medical imaging systems to medical institutions. The magnetic source imaging, or MSI, systems the Company has developed measure magnetic fields created by the human body for the noninvasive diagnosis of certain medical disorders. The Company's operations are located in the United States and Germany and formerly Finland.

*Principles of Consolidation*

The consolidated financial statements include the accounts of the Company, Biomagnetic Technologies GmbH, a wholly owned foreign subsidiary located in Germany, and Neuromag Oy, a wholly owned foreign subsidiary located in Finland. All material intercompany balances and transactions have been eliminated in consolidation.

*Cash and Cash Equivalents*

The Company considers all unrestricted highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. The carrying value of cash equivalents approximates fair value.

*Credit Risk*

It is the Company's practice to place its cash equivalents in high quality money market securities with one major banking institution. Periodically, the Company maintains cash balances at this institution that exceed the Federal Deposit Insurance Corporation insurance limit of \$100,000 per bank. The Company considers its credit risk associated with cash and cash equivalents to be minimal.

*Fair Value of Financial Instruments*

The carrying amounts of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximate fair market value because of the short maturity of those instruments. Notes payable approximate fair value due to the risk adjusted market rate of interest.

*Accounts Receivable*

Accounts receivable consists primarily of amounts due under contractual sales agreements.

*Inventories*

Inventories are carried at the lower of cost or market. Cost is determined on the first-in, first-out basis and includes material, labor and manufacturing overhead costs. Technological changes could result in excess or obsolete inventory. To minimize this risk, the Company evaluates inventory levels and expected usage on a periodic basis and records adjustments as required.

*Property and Equipment*

Property and equipment is valued at cost. Depreciation is generally computed using the straight-line method over estimated useful lives of three to ten years. Improvements to leased properties are amortized over their estimated useful lives or lease periods whichever is shorter. Maintenance and repairs are charged to expense as incurred and the costs of additions and betterments that increase the useful lives of related assets are capitalized. Depreciation expense was approximately \$100,000 and \$286,000 for fiscal years 2003 and 2002, respectively.

### *Goodwill*

In June 2001, the Financial Accounting Standards Board, or FASB, issued Statement of Financial Accounting Standards, or SFAS, No. 142, "Goodwill and Other Intangible Assets."

The Company adopted SFAS No. 142 in fiscal year 2002, as of October 1, 2001. The value of goodwill was \$2,204,000 and \$8,177,000 as of September 30, 2002 and 2001, respectively. Goodwill recognized in the acquisition of Neuromag Oy was being amortized on a straight-line basis over eight years. The goodwill amortization was approximately \$1,319,000 and \$1,141,000 for the years ended September 30, 2001 and 2000, respectively.

The Company recorded an impairment of goodwill for \$5,974,000 in fiscal year 2002. The impairment of goodwill resulted from the sale of Neuromag Oy, for \$4,000,000 less shareholder's equity of \$1,796,000 as of September 30, 2002 (see Note 3 of the consolidated financial statements).

### *Long-Lived Assets*

The Company assesses potential impairments to its long-lived assets when there is evidence that events or changes in circumstances have made recovery of the asset's carrying value unlikely. An impairment loss is recognized when the sum of the expected future net cash flows is less than the carrying amount of the asset.

### *Income Taxes*

Income taxes are accounted for using the liability method. Deferred income tax assets or liabilities are recognized based on the temporary differences between financial statement and income tax bases of assets and liabilities using enacted tax rates in effect for the years in which the differences are expected to reverse. Valuation allowances are recorded when the realization of deferred tax assets are uncertain.

### *Revenue Recognition*

Standard terms for product sales generally provide for payment of 30%-40% of the contracted purchase price upon placement of the order, 40%-50% upon shipment, and the remaining balance is due upon final customer acceptance. The Company recognizes revenue at the time of customer acceptance. Service revenues, from a one-year service period following a sale, are deferred and recognized over the related service period.

Product service and contract revenues are recognized as the services are performed.

### *Research and Development*

Research and development costs are expensed as incurred.

### *Software Development Costs*

Costs relating to the development of software, after technological feasibility is established, are required to be capitalized. The Company has expensed all software development costs as incurred as technological feasibility is not reached until product testing is complete, which generally coincides with product release.

### *Stock-Based Compensation Accounting*

The Company has elected to measure compensation expense for its stock-based employee compensation plans using the intrinsic value method prescribed by Accounting Principle Board Opinion No. 25, "Accounting for Stock Issued to Employees," and have provided pro forma disclosures as if the fair value based method prescribed by the Statement of Financial Accounting Standards No. 123 "Accounting for Stock-Based Compensation" had been utilized.

### *Net Loss per Share*

Basic and diluted net loss per share is computed in accordance with Statement of Financial Accounting Standards No. 128 "Earnings Per Share," based upon the weighted average number of common shares

outstanding. Potentially dilutive securities, consisting of stock options, are anti-dilutive and are excluded from the computation of diluted net loss per share.

#### *Foreign Currency Remeasurement and Translation*

The functional currency of the Company's German subsidiary is the U.S. dollar. The monetary assets and liabilities of the German subsidiary are remeasured into the U.S. dollar at the exchange rate in effect at the balance sheet date while nonmonetary items are remeasured at historical rates. Revenues and expenses are remeasured at average exchange rates for the period. Remeasurement gains or losses of the foreign subsidiary are recognized currently in consolidated operations. For the years ended September 30, 2003 and 2002, such gains and losses have not been significant.

The functional currency of the Company's Finnish subsidiary is the Eurodollar. The functional currency of the Company's Finnish subsidiary changed as of October 1, 2001 to the Eurodollar from the Finnish Marka as required by local regulations. This change in currency has had no significant impact on the Company's financial position, results of operations or its cash flow. Assets and liabilities of the Finnish subsidiary are translated into U.S. dollars at the exchange rate in effect at the balance sheet date and revenues and expenses are translated at average exchange rates for the period. Translation gains and losses are reflected as a component of accumulated other comprehensive loss in shareholders' deficit.

#### *Recent Authoritative Pronouncements*

In connection with the Company's adoption of FASB interpretation No. 45 (FIN 45), "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Guarantees of indebtedness of Others," the following disclosures are made with respect to the Company's product warranties.

The Company provides a limited warranty for its products. A provision for the estimated warranty cost is recorded at the time revenue is recognized. Costs of repair or replacement are established and charged to cost of sales at the time the related service is rendered. The amount of liability to be recorded is based on management's best estimates of future warranty costs after considering historical and projected product failure rates and product repair costs. The Company's standard product warranties are for one year, although in some agreements, it may warrant products for periods in excess of one year. The Company had \$258,000 warranty accruals at September 30, 2002. The following table summarizes the activity related to product warranty accruals for the year ended September 30, 2003:

	<u>(in thousands)</u>
Balance at September 30, 2002	\$ 258
Increase in warranties related to system installation	512
Warranty activity in the period	<u>(216)</u>
Balance at September 30, 2003	<u>\$ 554</u>

The Company also undertakes indemnification obligations in the ordinary course of business related to its products, the licensing of its software, and the issuance of securities. Under these arrangements, the Company may indemnify other parties such as business partners, customers, and underwrites, for certain losses suffered, claims of intellectual property infringement, negligence and intentional acts in the performance of services, and violations of laws including certain violations of securities laws. The Company's obligation to provide such indemnification in such circumstances would arise if, for example, a third party sued a customer for intellectual property infringement and the Company agreed to indemnify the customer against such claims. The Company is unable to estimate with any reasonable accuracy the liability that may be incurred pursuant to its indemnification obligations. Some of the factors that would affect this assessment include, but are not limited to, the nature of the claim asserted, the relative merits of the claim, the financial ability of the parties, the nature and amount of damages claimed, insurance coverage that the Company may have to cover such claims, the willingness of the parties to reach settlement, if any. Because of the uncertainty surrounding these circumstances, the Company's indemnification obligations could range from immaterial to having a material adverse impact on its financial position and its ability to continue in the ordinary course of business.



In June 2002, the FASB issued SFAS No. 145, "Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections." This statement requires the classification of gains or losses from the extinguishments of debt to meet the criteria of Accounting Principles Board, or APB, Opinion No. 30 "Reporting the Results of Operations - Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions" before they can be classified as extraordinary in the income statement. Those companies that use debt extinguishments as a part of their risk management strategy are required to classify the gain or loss from extinguishments of debt as a part of operating income in the income statement. The Company adopted SFAS No. 145 during the quarter ended December 31, 2002 with no material impact.

In September 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities." This statement addresses financial accounting and reporting for costs associated with exit or disposal activities. This statement requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. The provisions of this statement are effective for exit or disposal activities that are initiated after December 31, 2002. The Company adopted SFAS No. 146 during the quarter ended December 31, 2002. There were no additional costs associated with the sale of Neuromag Oy other than the costs reflected in the financial statements and disclosed in Note 3, Sale of Finnish Subsidiary Neuromag Oy.

In November 2002, the FASB issued FASB Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others." This interpretation addresses the disclosures to be made by a guarantor in its interim and annual financial statements about its obligations under guarantees. This interpretation also clarifies the requirements related to the recognition of a liability by a guarantor at the inception of a guarantee for the obligations that the guarantor has undertaken in issuing that guarantee. Management has assessed the impact of this interpretation and believes it has no material impact.

In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation - Transition and Disclosure." This statement amends FASB statement No. 123 to provide accounting guidance related to stock based employee compensation. SFAS No. 123, as amended, encourages, but does not require, companies to record compensation cost for stock-based employee compensation plans at fair value. The Company has chosen to continue to account for stock-based compensation using the intrinsic value method prescribed in APB Opinion No. 25, "Accounting for Stock Issued to Employees", and related interpretations for all periods presented. Accordingly, compensation cost for stock options is measured as the excess, if any, of the fair value of the Company's stock at the date of the grant over the amount an employee must pay to acquire the stock.

The following table summarizes the impact on the Company's net loss had compensation cost been determined based upon the fair value at the grant date for awards under the stock option plans consistent with the methodology prescribed under SFAS No. 123 (in thousands, except per share data):

	Years Ended September 30,	
	2003	2002
Net loss, as reported	\$ (3,708)	\$ (10,038)
Add: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	10	109
Pro forma net loss	<u>\$ (3,718)</u>	<u>\$ (10,147)</u>
Basic and diluted loss per share:		
As reported	\$ (0.018)	\$ (0.066)
Pro forma	\$ (0.018)	\$ (0.066)

The Company accounts for stock options granted to non-employees using the fair value method. Compensation expense for options granted to non-employees has been determined in accordance with Emerging Issues Task Force, or EITF, No. 96-18, "Accounting for Equity Instruments that are Issued to

Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services", as the fair value of the consideration received or the fair value of the equity instruments issued, whichever is more reliably measurable. Compensation expense for options granted to non-employees is periodically remeasured as the underlying options vest and is recorded as expense and deferred compensation in the financial statements.

Holders of common stock are entitled to one vote per share. Basic earnings per share are computed by dividing net income or loss by the weighted average of common shares outstanding during the period. Diluted earnings per share reflects the potential dilution that could occur if securities or other contracts to issue common stock (warrants to purchase common stock and common stock options using the treasury stock method) were exercised or converted into common stock. Potential common shares in the diluted earnings per share computation are excluded when their effect would be antidilutive.

In January 2003, the FASB issued FASB Interpretation No. 46, "Consolidation of Variable Interest Entities." This interpretation clarifies the application of Accounting Research Bulletin No. 51, "Consolidated Financial Statement", to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. It further clarifies whether an entity shall be subject to consolidation according to the provisions of this interpretation, if by design, certain conditions exist. Management has assessed the impact of this interpretation and believes it has no material impact.

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristic of both Liabilities and Equities." This statement establishes standards for how an issuer classifies and measures in its statement of financial position certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in some circumstances) because that financial instrument embodies an obligation of the issuer. Management has assessed the impact of this statement and believes it has no material impact.

#### *Use of Estimates*

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities, at the date of these financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### *Reclassifications*

Certain prior year balances have been reclassified to conform to the current year presentation.

#### *Risks and Uncertainties*

The Company is dependent on continued financing from investors and obtaining new customers to sustain operations and other activities necessary to commercialize their products. In addition to current working capital, management is seeking additional financing in order to fund its future activities. There is no assurance, however, that such financing will be available, if and when needed, or if available, such financing will be completed on commercially favorable terms, nor that development and other activities in connection with its products will be successful.

#### **Note 2. Liquidity and Going Concern**

These financial statements have been prepared assuming that the Company will continue as a going concern. The Company has operating and liquidity concerns, has incurred a loss of \$3,708,000 for the year ended September 30, 2003, an accumulated deficit of \$124,689,000 through the fiscal year ended September 30, 2003, and as of that date, current liabilities exceeded current assets by \$1,717,000. These factors, among others, create substantial doubt about the Company's ability to continue as a going concern. There can be no assurance that the Company will be able to successfully acquire the necessary

capital to continue their operations. Management's plans to acquire future funding include additional product sales and seeking additional equity investments through private placements.

### **Note 3. Sale of Finnish Subsidiary Neuromag Oy**

In December 1999, the Company acquired Neuromag Oy, located in Helsinki Finland for \$10 million in cash and an interest-free minimum royalty obligation of \$312,500 per year for eight years (totaling \$2.5 million) to Marconi Medical Systems, Inc., Cleveland, Ohio. The funds for the purchase were provided by a loan from AIG Private Bank Ltd. ("AIG") totaling \$11 million secured by 100% of the outstanding and issued capital stock of Neuromag Oy and guaranteed by an entity unaffiliated with the Company.

In April 2001, \$8,951,000 of the debt to AIG was cancelled in exchange for 42,623,810 shares of common stock of the Company as part of a private placement transaction with specified investors in accordance with Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended. The common stock was issued at a per-share price of \$0.21.

The remainder of the AIG bank loan was restructured. As restructured, the loan in the principal amount of \$3,357,000 from AIG matured in July 2002 at which time the Company defaulted on the loan.

Due to changes in the business environment and to satisfy the debt to AIG the Company decided to sell its Finnish subsidiary, Neuromag Oy. The subsidiary was sold to Vaandramolen Holding BV, or VHBV, in October 2002, for a total of \$4,000,000 in cash. \$3,694,000 of the proceeds were used to fully pay the AIG bank debt, \$100,000 were used to pay part of the existing intercompany debt and the remainder for general corporate purposes.

The Company adopted SFAS No. 142 in fiscal year 2002, which requires that goodwill and certain intangibles no longer be amortized, but instead tested for impairment at least annually. Therefore, there was no goodwill amortization in fiscal year 2002, compared to \$1,319,000 in fiscal year 2001. In the Company's consolidated financial statements dated September 30, 2002, the Company recognized a goodwill impairment of \$5,974,000 due to the sale of the Company's Finnish subsidiary in October 2002. The Company retains responsibility for the royalty obligations to Marconi after the sale of Neuromag Oy.

The Company adopted SFAS No. 144 in fiscal year 2002, which requires that adjustments to amounts previously reported in discontinued operations that are directly related to the disposal of component of an entity in a prior period be classified separately in the current period in discontinued operations. Pursuant to the sale of Neuromag Oy in October 2002, the resolution of liability obligations directly related to the sale resulted in the Company recognizing a net recorded gain of \$455,000 on the sale of the Company's Finnish subsidiary for the fiscal year ended September 30, 2003.

### **Note 4. Financing and Equity Arrangements**

For the past two years the Company has had significant liquidity concerns. The Company incurred a loss of \$3,708,000 for the year ended September 30, 2003, had an accumulated deficit of \$124,689,000 through the fiscal year ended September 30, 2003, and as of that date, current liabilities exceeded current assets by \$1,717,000.

On or about November 5, 2002, the Company entered into another line of credit with AIG Bank for \$1,000,000. Proceeds were used to pay off two unsecured loans from members of the Company's board of directors, each in the amount of \$125,000 to pay off the unsecured loan from MATRUST, S.L., for \$100,000, no interest was charged, to pay off the unsecured loan from International Sequoia Investment Ltd. for \$100,000, no interest was charged and to pay off certain accounts payable in the amount of \$120,000 to Dr. Galleon Graetz, a member of the board of directors and a consultant for the Company. All of these amounts, totaling \$570,000, were then pledged by the respective parties as collateral against the loan. The remaining amount was used for general corporate purposes.

Additionally, Mr. Egli, a member of the Company's board of directors, provided a personal guarantee of \$500,000 and the Company pledged its patent portfolio and a Magnes 2500 WH system, currently installed at the University of Alabama, to which the Company retains title.

Also, the Company issued 60,000,000 shares of its common stock representing approximately 29% of its outstanding voting securities in a private placement transaction with Swisspartners Investment Network AG in accordance with Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended, which was consummated on or about December 27, 2002. The common stock was issued at a per-share price of \$0.05, in exchange for cash in the amount of \$3,000,000.

#### Note 5. Debt

In January 2002, 4-D Neuroimaging obtained two \$125,000 unsecured loans, one from Enrique Maso and one from Swisspartners Investment Network Ltd., or Swisspartners, with an interest rate of 8% per annum. In August 2002, 4-D Neuroimaging obtained two \$100,000 unsecured loans, one from MATRUST, S.L. and one from International Sequoia Investment Ltd., with an interest rate of 8% per annum. The principal amounts of the loans were repaid in November 2002, accrued interest for Enrique Maso was recorded as a gain on extinguishment of debt and is reflected in other income on the statement of operations. The accrued interest for Swisspartners was due and payable in March 2003 and paid in April 2003.

In November 2002, the Company entered into another line of credit with AIG Bank for \$1,000,000. The interest on the line of credit is 4.17% and initially the line of credit was due and payable November 5, 2003. In January 2003 the maturity of the line of credit was extended until May 31, 2004. Proceeds were used to pay off the two \$125,000 unsecured loans from Enrique Maso and Swisspartners, the two \$100,000 unsecured loans from MATRUST, S.L. and International Sequoia Investment Ltd. and to pay certain accounts payable in the amount of \$120,000 to Dr. Galleon Graetz, a member of the board of directors and a consultant for the Company. All of these amounts, totaling \$570,000, were then pledged by the respective parties as collateral against the loan. The remaining amount was used for general corporate purposes.

As additional collateral against the loan, Mr. Egli, a member of the Company's board of directors, provided a personal guarantee of \$500,000 and the Company pledged its patent portfolio and a Magnes 2500 WH system, currently installed at the University of Alabama, to which the Company retains title.

#### Note 6. Segment and Geographic Information

The Company operates in one segment that includes developing, manufacturing and selling MSI products. The Company's operations can be divided into three markets: the basic research market, the clinical applications development market, and the commercial clinical market. Substantially all of its revenues have been derived from, and substantially all its assets have been devoted to, the basic research market. The following table summarizes the Company's continuing operations of its revenues and long-lived assets, excluding intangible, deferred tax and prepaid assets.

In October 2002, the Company sold its Finnish subsidiary, Neuromag Oy, and these operations have been accounted for as discontinued operations for all of the periods presented and are not included in the segment data.

	Years Ended September 30,	
	2003	2002
Revenues:		
North America	\$ 2,148,162	\$ 4,149,604
Europe	557,011	983,905
Asia	103,656	169,080
	<u>\$ 2,808,829</u>	<u>\$ 5,302,589</u>
Long-Lived assets:		
North America	116,956	193,033
Europe	38,586	40,029
	<u>\$ 155,542</u>	<u>\$ 233,062</u>

**Note 7. Concentrations of Risk***Customer Concentrations*

On average, the Company's MEG systems generally sell for approximately \$1.0 - \$2.5 million, resulting in significant concentrations of revenues and accounts receivable. For the year ended September 30, 2003 two customers represented 49% and 14% of product revenues, respectively. For the year ended September 30, 2002 seven customers represented 18%, 18%, 18%, 11%, 9%, 9% and 5% of product revenues, respectively.

*Distributor and Vendor Concentrations*

In January 2000, the Company entered into an exclusive distributor agreement to market, sell, distribute and service its MEG products in certain regions of Asia, including Japan, for an initial period of three years.

**Note 8. Consolidated Financial Statement Information**

In October 2002, the Company sold its Finnish subsidiary, Neuromag Oy, and these operations have been accounted for as discontinued operations for all of the periods presented and are not included in the segment data.

Inventories consist of the following as of September 30:

	<u>2003</u>	<u>2002</u>
Finished goods	\$ 803,005	\$ 1,278,005
Work-in-process	1,976,501	2,006,716
Raw materials	<u>156,014</u>	<u>246,607</u>
	<u>\$ 2,935,520</u>	<u>\$ 3,531,328</u>

Net property and equipment consists of the following as of September 30:

	<u>2003</u>	<u>2002</u>
Machinery and equipment	\$ 1,481,778	\$ 3,700,194
Office furniture and equipment	1,082,437	1,416,235
Leasehold improvements	<u>1,401,798</u>	<u>1,401,798</u>
	3,966,013	6,518,227
Less accumulated depreciation	<u>(3,810,471)</u>	<u>(6,285,362)</u>
	<u>\$ 155,542</u>	<u>\$ 232,865</u>

Accrued liabilities consist of the following as of September 30:

	<u>2003</u>	<u>2002</u>
Warranty allowance	\$ 554,167	\$ 258,333
Accrued interest	303,152	114,267
Collaboration Agreement-MGH	-	130,417
Other	<u>139,611</u>	<u>124,140</u>
	<u>\$ 996,930</u>	<u>\$ 627,157</u>

**Note 9. Income Taxes**

The components of deferred tax assets at September 30, 2003 and 2002 are as follows:

	<u>2003</u>	<u>2002</u>
Net operating loss carryforwards	\$ 16,175,000	\$ 15,462,000
Tax credits	1,096,000	1,096,000
Capitalized research and development costs	216,000	372,000
Allowances	1,095,000	869,000
Capital loss and contribution carryforwards	2,992,000	-

Other	<u>239,000</u>	<u>310,000</u>
	21,813,000	18,109,000
Valuation allowance	<u>(21,813,000)</u>	<u>(17,521,000)</u>
Net deferred tax assets	<u>\$ -</u>	<u>\$ 588,000</u>

A valuation allowance for substantially all of the deferred tax assets has been provided because realization of such future tax benefits cannot be assured. The fiscal year 2002 net deferred tax assets are attributable to the operations of Neuromag Oy. The Company's provision for income taxes in fiscal years 2003 and 2002 consists of \$800 of minimum state taxes. The Company has approximately \$44,400,000 and \$18,400,000 of Federal and State net operating loss carryforwards which will expire at various dates through 2022. As a result of ownership changes (as defined by Section 382 of the Internal Revenue Code of 1986, as amended) which occurred in fiscal year 1995 and fiscal year 1997, the Company's Federal tax loss carryforwards generated prior to fiscal year 1997 have been limited to a total of approximately \$14,039,000 of which approximately \$930,000 can be utilized per year as of September 30, 2003. Any additional ownership changes may further limit the utilization of the net operating loss carryforwards.

The provision for income taxes reconciles to the amount computed by applying the federal statutory rate to loss before provision for income taxes as follows:

	<u>2003</u>	<u>2002</u>
Computed expected federal tax benefit	\$ (1,243,878)	\$ (3,412,961)
State taxes, net of federal benefit	(213,289)	(585,723)
Change in valuation reserve	4,292,000	1,351,800
Impairment of goodwill	-	2,379,385
Tax loss on subsidiary sale	(2,987,918)	-
Other	<u>153,885</u>	<u>268,299</u>
Provision for income taxes	<u>\$ 800</u>	<u>\$ 800</u>

#### **Note 10. Commitments and Contingencies**

##### *Lease Commitments*

Cost of equipment under capital leases included in property and equipment in the accompanying consolidated balance sheets totaled \$69,363 with related accumulated depreciation of \$57,803 as of September 30, 2003.

The Company leases its facility pursuant to a five-year lease agreement. In February 2003, we signed a new five-year lease agreement with the owners of the property where our headquarters are located in San Diego. The lease expires in February 2008. The leased space has been reduced to approximately 46,000 square feet and the average monthly lease payment for the first year and over the term of the lease will be approximately \$35,000 and \$52,000 respectively. We sublease approximately 450 square feet of the leased facility on a month-to-month basis to one company for a net monthly rent of approximately \$425.

The branch office in Germany leases approximately 3,000 square feet at Gruener Weg 82, D-5100 Aachen, Germany pursuant to a year-to-year lease agreement expiring in December 2003. Monthly lease payments are approximately \$2,000. Sales and service for the European operations are conducted from the German facility.

Approximate minimum future lease payments excluding Neuromag Oy, (net of sub-lease payments) as of September 30, 2003 are as follows:

<u>Year Ending September 30,</u>	<u>Capital Leases</u>	<u>Operating Leases</u>
2004	\$ 7,893	\$ 438,192
2005	-	520,208
2006	-	596,205
2007	-	616,028
2008	-	260,520
Thereafter	<u>-</u>	<u>-</u>

	7,893	<u>\$ 2,431,153</u>
Less amount representing interest	<u>(256)</u>	
Present value of obligations under capital leases	7,637	
Current portion	<u>(7,637)</u>	
	<u>\$ -</u>	

Total rent expense was approximately \$576,000 and \$772,000 for the years ended September 30, 2003 and 2002, respectively.

#### *Clinical Collaborations*

The Company is currently involved with clinical collaboration agreements with certain medical institutions utilizing the Company's MEG systems for research. Under terms of the agreements, the Company provided certain services, product and technical support and under one agreement is entitled to revenue sharing from medical reimbursements received. During fiscal years 2003 and 2002, the Company incurred \$19,000 and \$65,000, respectively, of expenses related to those agreements and at September 30, 2003, the Company had no further commitments of this type. During fiscal years 2003 and 2002, revenue sharing of \$177,000 and \$141,000, respectively, was recognized.

#### *Legal Matters*

In the ordinary course of business, the Company is subject to claims and, from time to time, is named in various legal proceedings. In the opinion of management, the amount of ultimate liability, if any, with respect to any actions will not materially affect the financial position or results of operations of the Company.

### **Note 11. Shareholders' Equity**

#### *Common Stock*

For fiscal year ended 2003, the common shares authorized increased from 300,000,000 to 500,000,000 shares.

On or about April 26, 2001, the Company issued 59,549,081 shares of its common stock representing approximately 41% of its outstanding voting securities in a private placement transaction with specified investors in accordance with Rule 506 of Regulation D and Section 4(2) of the Securities Act of 1933, as amended. The common stock was issued at a per-share price of \$0.21, in exchange for cancellations of indebtedness in the aggregate amount of \$10,505,307 and cash in the aggregate sum of \$2,000,000.

The \$10,505,307 in cancellations of indebtedness consisted of a partial cancellation of indebtedness in the amount of \$8,951,000 by AIG Bank according to a letter agreement dated on or about April 25, 2001 between AIG Bank and 4-D Neuroimaging, full cancellations of indebtedness in the amounts of \$872,867 and \$224,875 by Swisspartners, a full cancellation of indebtedness in the amount of \$224,875 by MATRUST, S.L., a full cancellation of indebtedness by Sequoia, in the amount of \$224,875, and a full cancellation of indebtedness in the amount of \$6,815 from Amaldos, S.A. The full cancellations of indebtedness entered into between the Company and each of Amaldos, S.A., MATRUST, S.L., Sequoia and Swisspartners represent the portion of the debt assigned to each such entity by BDN upon its reduction of capital. Martin Egli, a member of the Company's board of directors, is also a member of the board of directors of AIG Bank and is a managing partner of Swisspartners. Dr. Maso, a member of the Company's board of directors, is a majority shareholder in MATRUST, S.L. Mr. Velasco, a member of the Company's board of directors, is a major investor in Sequoia.

#### *Stock Option Plans*

The Company has various incentive and non-qualified stock option plans which provide that options to purchase shares of common stock may be granted to key employees and others at an option price of at least fair market value at the date of grant and vest over a maximum period of four years from the date of grant. The exercise period for each option is not to exceed 10 years from the date of grant. On December

31, 1996, the Company's 1987 Incentive Stock Option Plan that provided options to purchase up to 5,000,000 shares of common stock expired. At January 1, 1997, the 1997 Incentive Stock Option Plan was approved by the board of directors authorizing options to purchase 3,000,000 shares of common stock. In May 1999, March 2000, March 2002 and March 2003 shareholders approved amendments of the 1997 Incentive Stock Option Plan, increasing the number of shares authorized for issuance to 80,000,000 shares of common stock.

The following table summarizes option plan activity:

	<u>Options</u>	<u>Weighted Average Exercise Price</u>
Outstanding at September 30, 2001	5,483,119	\$ 0.38
Granted	250,000	\$ 0.14
Canceled	(69,700)	\$ 0.27
Exercised	<u>(200,000)</u>	\$ 0.15
Outstanding at September 30, 2002	5,463,419	\$ 0.37
Granted	1,540,000	\$ 0.05
Canceled	(645,900)	\$ 0.30
Exercised	<u>(1,500,000)</u>	\$ 0.05
Outstanding at September 30, 2003	<u>4,857,519</u>	\$ 0.37

The following table summarizes stock options outstanding as of September 30, 2003:

Range of Exercise Prices	<u>Options</u>	<u>Outstanding</u>		<u>Vesting</u>	
		Weighted-Avg. Remaining Contractual Life In Years	Weighted Average Exercise Price	Options	Weighted Average Exercise Price
\$ 0.06- 0.20	142,000	6.71	\$ 0.13	134,500	\$ 0.13
\$ 0.21- 0.28	1,776,050	5.69	\$ 0.23	1,776,050	\$ 0.23
\$ 0.32- 0.37	45,000	5.40	\$ 0.34	45,000	\$ 0.34
\$ 0.42- 0.50	2,875,569	3.53	\$ 0.47	2,875,569	\$ 0.47
\$ 0.59- 0.75	<u>18,900</u>	4.74	\$ 0.69	<u>18,275</u>	\$ 0.69
	<u>4,857,519</u>	4.43	\$ 0.37	<u>4,849,394</u>	\$ 0.37

If the Company had elected to recognize stock-based employee compensation costs (including the Company's Employee Stock Purchase Plan) based on the fair value on the date of grant consistent with the provisions of SFAS No. 123, net loss and basic and diluted net loss per share would have been increased to the following amounts:

	<u>2003</u>	<u>2002</u>
Pro forma net loss	\$ (3,717,200)	\$ (10,147,390)
Pro forma basic and diluted net loss per share	\$ (0.018)	\$ (0.066)

As required by SFAS No. 123, the Company provides the following disclosure of hypothetical values for their outstanding stock options. The options are valued between \$0.02 and \$0.03 for the years ended September 30, 2003 and 2002. This value was estimated using the Black-Scholes option pricing model with the following weighted-average assumptions for fiscal years ended September 30, 2003 and 2002: expected dividend yield of 0%, expected volatility is between 2.50 and 2.61, risk free interest rate of 2.51% to 6.88% and expected life between 5 and 10 years.

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. Option valuation models also require the input of highly subjective assumptions such as expected option life and expected stock price volatility. Because the employee stock-based compensation plans have characteristics significantly different from those of traded options and because changes in the subjective input assumptions can



materially affect the fair value estimate, the Company believes that the existing option valuation models do not necessarily provide a reliable single measure of the fair value of awards from those plans.

#### *Employee Stock Purchase Plan*

In January 2002 the Company established another Employee Stock Purchase Plan in which eligible employees may use funds from accumulated payroll deductions to purchase shares of common stock at the end of designated purchase periods. Employees may contribute up to 15% of their base salary toward such purchases, not to exceed \$25,000 per calendar year. The purchase price is the lesser of 85% of the fair market value of common stock determined at the beginning or end of the purchase period. In October 2003 the Company elected to discontinue the plan, due to the low participation and high administrative costs.

#### **Note 12. Employee Benefit Plans**

The Company maintains a defined contribution 401(k) plan (the "Plan") for substantially all of its U.S. employees. Those employees who participate in the Plan are entitled to make contributions up to the IRS statutory contribution limits. Company contributions to the Plan are discretionary as determined by the board of directors and the Company did not contribute any funds to the Plan in fiscal years 2003 or 2002.

#### **Note 13. Selected Quarterly Data (Unaudited)**

Unaudited quarterly data for fiscal years 2003 and 2002 is summarized below: (In thousands, except per share data)

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
<u>2003</u>				
Net revenues	\$ 704	\$ 202	\$ 193	\$ 1,709
Gross margin	\$ 17	\$ (147)	\$ (56)	\$ (103)
Net income (loss)	\$ 676	\$ (1,093)	\$ (1,879)	\$ (1,412)
Basic and diluted net income (loss) per share	\$ 0.004	\$ (0.005)	\$ (0.008)	\$ (0.006)
<u>2002</u>				
Net revenues	\$ 745	\$ 2,211	\$ 2,109	\$ 238
Gross margin	\$ (119)	\$ 380	\$ 622	\$ (738)
Net income (loss)	\$ (1,216)	\$ (826)	\$ 254	\$ (8,250)
Basic and diluted net income (loss) per share	\$ (0.01)	\$ (0.01)	\$ 0.002	\$ (0.05)

#### 4-D NEUROIMAGING

#### SCHEDULE II --VALUATION AND QUALIFYING ACCOUNTS

<u>Description</u>	<u>Balance at Beginning of Period</u>	<u>Charged to Costs and Expenses</u>	<u>Deductions</u>	<u>Balance at End of Period</u>
Allowance for doubtful accounts				
Fiscal Year 2003	\$ 216,124	\$ 68,328	\$ -	\$ 284,452
Fiscal Year 2002	\$ 210,000	\$ 6,124	\$ -	\$ 216,124
(A) Collection of previously reserved amounts				

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#### Allowance for obsolete and slow moving inventory

Fiscal Year 2003	\$1,487,707	\$ 190,000	\$ 1,468 (B)	\$1,676,239
Fiscal Year 2002	\$1,334,997	\$ 170,000	\$ 17,290 (B)	\$1,487,707
(B) Sale or disposal of items under allowance				

## **Code of Business Conduct and Ethics**

### **Purpose and Scope**

Since its founding, 4-D Neuroimaging (the "Company") has required that all its employees maintain the highest level of integrity in their dealings on behalf of the Company (i.e., 4-D Neuroimaging and its subsidiaries), in their dealings with the Company, and in everything affecting the Company's relationships with its banks, with its security holders and with others with whom the Company does business. The Company believes the high level of integrity with which it conducts its affairs has been a major factor in the Company's success.

This Code of Business Conduct and Ethics ("Code") is intended to document the principles of conduct and ethics to be followed by the Company's employees, officers and directors, including its principal executive officer, its principal financial officer and its principal accounting officer. Its purpose is to:

- a. Promote honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- b. Promote avoidance of conflicts of interest, including disclosure to an appropriate person or committee of any material transaction or relationship that reasonably could be expected to give rise to such a conflict;
- c. Promote full, fair, accurate, timely and understandable disclosure in reports and documents that the Company files with, or submits to, the Securities and Exchange Commission and in other public communications made by the Company;
- d. Promote compliance with applicable governmental laws, rules and regulations;
- e. Promote the prompt internal reporting to an appropriate person or committee of violations of this Code;
- f. Promote accountability for adherence to this Code;
- g. Provide guidance to employees, officers and directors to help them recognize and deal with ethical issues;
- h. Provide mechanisms to report unethical conduct; and
- i. Help foster the Company's longstanding culture of honesty and accountability.

The Company will expect all its employees, officers and directors to comply at all times with the principles in this Code. Violations of this Code by an employee or officer are grounds for disciplinary action up to and including immediate termination of employment and possible legal prosecution.

### **Fair Dealing**

- a. Each employee and officer will at all times deal fairly with the Company's customers, suppliers, competitors and employees. While we expect our employees to try hard to advance the interests of the Company, we expect them to do so in a manner that is consistent with the highest standards of integrity and ethical dealing.
- b. No employee or officer is to take unfair advantage of anyone through manipulation, concealment, abuse of privileged information, misrepresentation of material facts, or any other unfair-dealing practice.

### **Compliance with Laws, Rules and Regulations (Including Insider Trading Laws)**

- a. Employees, officers and directors are expected to comply at all times with all applicable laws, rules and regulations.

- b. Employees, officers and directors are required to comply with the Company's Policy Regarding Non-Public Information, and with all other policies applicable to them that are adopted by the Company from time to time.
- c. Employees, officers and directors must cooperate fully with the people responsible for preparing reports filed with the Securities and Exchange Commission and all other materials that are made available to the investing public to make sure those people are aware in a timely manner of all information that might have to be disclosed in those reports or other materials or that might affect the way in which information is disclosed in them.

#### **Conflicts of Interest**

- a. **Definition:** A "conflict of interest" occurs when an individual's private interest is different from the interests of the Company as a whole. Conflict situations include:
  - 1) **Action or Inaction:** When an employee, officer, or director, or a member of his or her family, will benefit personally from something the employee, officer or director does or fails to do that is not in the best interests of the Company,
  - 2) **Objectivity:** When an employee, officer or director takes actions or has interests that may make it difficult to perform his or her Company work objectively and effectively, and
  - 3) **Personal Benefits:** When an employee, officer or director, or a member of his or her family, receives personal benefits from somebody other than the Company as a result of his or her position in the Company which are not generally available to all the Company's employees, or at least to all employees in the same area of work or the same geographic area. Loans to, or guarantees of obligations of, employees, officers or directors by persons with whom the Company does business are of special concern.
  - 4) **Competing Activities:** When an employee, officer, or director engages in any activity that is competitive with the business activities and operations conducted from time to time by the Company.
- b. **Specific Situations:** The following rules apply to specific situations that involve, or may involve, conflicts of interest:
  - 1) **Transactions with the Company:** No employee, officer or director, or member of the immediate family (defined below) of an employee, officer or director, may sell, lease or buy any kind of property, facility, equipment or service directly or indirectly from or to the Company other than on market terms or under policies available to all employees. Any exceptions to this policy must have written approval of the Management Committee of the Company.
  - 2) **Other Business Activities:** No full-time employee will engage in any part-time employment, business consulting arrangements or other business activities which could interfere with the employee's duties and obligations to the Company without written approval from the Management Committee.
  - 3) **Gifts, etc.:** No employee, officer, or director may accept any gift, favor, or personal incentive, including vacations, excursions, etc., of more than one hundred dollars (\$100.00) value, or a cash gift of any amount, from a current or prospective vendor, supplier, provider of professional services, contractor or customer.
  - 4) **Transactions with Family Members:** Where an immediate family member (parent, parent-in-law, spouse, child, or son or daughter-in-law, or any other adult relative living in the same household) of any employee, officer, or director is involved in a transaction with the Company, all payments, commissions, fees, or other remuneration to such family member, as well as details of the transaction itself, must be disclosed to and approved in advance by the Management Committee.
  - 5) **Exchange of Benefits:** No employee, officer, or director may solicit or accept any money, gift, favor, service, or other tangible or intangible benefit or service from any employee of the

Company or any subcontractor, vendor or other person with which the Company does business, even if it is otherwise permitted by this Code, in exchange for anything involving the performance of the person's responsibilities on behalf of the Company, or under circumstances that might impair the employee's, officer's or director's independent judgment as to what is in the best interests of the Company.

- c. Avoidance: Employees, officers and directors must do everything they reasonably can to avoid conflicts of interest or actions or relationships that give the appearance of conflicts of interest.
- d. Reporting: If a situation that creates a conflict of interest or the appearance of a conflict of interest arises, the person involved must promptly report it (1) if the person involved is a director or the principal executive officer of the Company, to the Audit Committee of the Company's Board of Directors and (2) if the person involved is someone other than a director or the principal executive officer of the Company, to the Management Committee. If an employee, officer or director becomes aware of a situation that he or she believes involves a conflict of interest by another employee, officer or director, the person who becomes aware of the situation must promptly report it to (a) the Management Committee, or (b) the President of the Company. Any report of a situation that is made to the President will be passed on to the applicable one of the Management Committee or the Audit Committee of the Company's Board of Directors. When there is any question of whether a conflict of interest is present and should be disclosed, all employees, officers and directors should resolve any doubt in favor of full disclosure.
- e. Exceptions: The Company recognizes that the foregoing procedures may not give due respect to the specifics of a particular situation. In the event a situation arises in which an employee, officer or director believes the foregoing procedures should not be applied, the employee, officer or director should seek the advice, in writing, of the Management Committee.
- f. Remedial Actions: In any instance in which an employee, officer or director becomes involved in a situation that involves a conflict of interest, or an appearance of one, he or she must work with the applicable one of the Management Committee or the Audit Committee of the Company's Board to devise an arrangement by which (1) that committee (or its designee) will monitor the situation which creates, or gives the appearance of creating, a conflict of interest, (2) the employee, officer or director who has a conflict of interest will, to the fullest extent possible, be kept out of any decisions that might be affected by the conflict of interest, (3) it is ensured that the employee, officer or director who has a conflict of interest will not profit personally from the situation that causes the conflict of interest, and (4) every reasonable effort will be made to eliminate the conflict of interest as promptly as possible.

#### Corporate Opportunities

- a. No employee, officer or director will:
  - 1) take for himself or herself personally any opportunity of which he or she becomes aware, or to which he or she obtains access, through the use of corporate property, information or position;
  - 2) make it possible for somebody other than the Company to take advantage of an opportunity in any of the Company's areas of business of which the employee, officer, or director becomes aware in the course of his or her activities on behalf of the Company, unless the Company has expressly decided not to attempt to take advantage of the opportunity;
  - 3) otherwise use corporate property, information, or position for personal gain; or
  - 4) compete with the Company generally or with regard to specific transactions or opportunities.
- b. Employees, officers and directors owe a duty to the Company to advance the Company's legitimate interests whenever the opportunity to do so arises.

### Confidentiality

- a. Employees, officers and directors must maintain the confidentiality of all information entrusted to them by the Company or its customers that is treated by the Company or its customers as confidential, except when disclosure is authorized by the Company or legally mandated.
- b. Confidential information includes all information that may be of use to the Company's competitors, or that could be harmful to the Company or its customers, if disclosed.
- c. Employees, officers and directors must comply with all confidentiality policies adopted by the Company from time to time and with confidentiality provisions in agreements to which they or the Company are parties.

### Protection and Proper Use of Company Assets

- a. Employees, officers and directors must do all reasonable things in their power to protect the Company's assets and ensure their efficient use by the Company.
- b. Employees, officers and directors will use the Company's assets only for the Company's legitimate business purposes.

### Change in or Waiver of the Code

- a. Any waiver of any provision of this Code must be approved:
  - 1) With regard to any director, the principal executive officer of the Company or a member of the Management Committee, by the Board of Directors (but without the involvement of any director who will be personally affected by the waiver) or by a committee consisting entirely of directors who will not be personally affected by the waiver.
  - 2) With regard to any other employee or officer, by the Management Committee.
- b. No waiver of any provision of this Code with regard to a director or officer will be effective until that waiver has been reported to the person responsible for the preparation and filing of the Company's reports on Form 8-K (or any successor to that form) in sufficient detail to enable that person to prepare a report on Form 8-K containing any required disclosure with regard to the waiver.
- c. The Company will disclose any change in this Code or any waiver of this Code in a filing with the Securities and Exchange Commission, or in another manner that complies with applicable Securities and Exchange Commission rules, and the Company will make any other disclosures of changes in, or waivers of, this Code, that are required by law or by the rules of any securities exchange or securities quotation system on which the Company's securities are listed or quoted.

### Compliance

- a. Employees, officers and directors must report promptly any violations of this Code of which they become aware (including any violations of the requirement of compliance with law) to the person to whom conflicts of interest involving the person who violated this Code would be reported as described under "Conflicts of Interest -- Reporting." In addition, any violation of this Code may be reported to the Chairman of the Audit Committee of Company's Board. Failure to report a violation can lead to disciplinary action against the person who failed to report the violation, which may be as severe as the disciplinary action against the person who committed the violation.
- b. The identity of the employee who reports a possible violation of this Code by another employee will be kept confidential, except to the extent the employee who reports the possible violation consents to be identified or the identification of that employee is required by law.
- c. Possible violations of this Code may be reported orally or in writing and may be reported anonymously.
- d. The Company will not allow retaliation for reports of possible violations of this Code made in good faith.

**Terms used in this Code**

- a. Any reference in this Code to the Company or to an employee of the Company is to 4-D Neuroimaging and all its subsidiaries or to an employee employed by 4-D Neuroimaging or any of its subsidiaries.
- b. Any reference in this Code to a director or officer of the Company is to a director or officer of 4-D Neuroimaging. It does not refer to a person who is an officer of a subsidiary unless the person is regularly involved in setting policy for 4-D Neuroimaging and its subsidiaries, and therefore in fact functions as an officer of 4-D Neuroimaging. For the purposes of this Code, a person who is employed by the Company and serves as an officer of a subsidiary will be treated as an employee, but not an officer, of the Company.

Exhibit 23

*CONSENT OF INDEPENDENT ACCOUNTANTS*

We hereby consent to the application of our report dated December 17, 2003 included in this Form 10-KSB of 4-D Neuroimaging, relating to their consolidated financial statements and schedule for the year ended September 30, 2003, and previously filed Form S-8 No. 333-60743, No. 33-61057, No. 33-32260, No. 33-33179, No. 33-68136, No. 333-54322, No. 333-90450, No. 333-96267 and No. 333-105716.

/s/ Swenson Advisors LLP  
San Diego, California  
December 18, 2003



CERTIFICATE OF SECRETARY

The undersigned hereby certifies that:

I am the duly qualified and acting Secretary of 4-D Neuroimaging, a California corporation (the "Corporation").

The following is a true copy of a Unanimous Written Consent duly adopted by the Board of Directors on December 1, 2003, which appears in the minute book of the Corporation:

"WHEREAS, the Corporation intends to file a Form 10-KSB with the Securities and Exchange Commission under the provisions of the Securities Exchange Act of 1934, for the fiscal year ended September 30, 2003;

RESOLVED, the board does hereby constitute and appoint D. Scott Buchanan and Eugene C. Hirschkoff, or either of them, as their attorneys-in-fact to act in their place and stead and to execute and to file such Annual Report and any amendments or supplements thereto, giving and granting to said attorneys full power and authority to do and perform each and every act whatsoever requisite and necessary to be done in and about the premises, with full power of substitution, as fully to all intents and purposes as the undersigned might or could do if personally present at the doing thereof, and hereby ratifying and confirming all that said attorneys may or shall lawfully do or cause to be done by virtue hereof."

Such resolution has not subsequently been amended, modified or revoked and as of the date of this Certificate is in full force and effect.

IN WITNESS WHEREOF, I have executed this Certificate of Secretary as of December 19, 2003.

/s/ Eugene C. Hirschkoff  
Eugene C. Hirschkoff, Secretary

Exhibit 31

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER  
PURSUANT TO RULE 13a-14(a)/15d-14(a) OF THE EXCHANGE ACT

I, D. Scott Buchanan, certify that:

1. I have reviewed this annual report on Form 10-KSB of 4-D Neuroimaging;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
  - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: December 19, 2003

/s/ D. Scott Buchanan

D. Scott Buchanan

Chief Executive Officer and Principal Financial Officer

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER  
PURSUANT TO §906 OF THE SARBANES-OXLEY ACT OF 2002

In accordance with 18 U.S.C. 1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, the undersigned, in his capacity as the Chief Executive Officer and Principal Financial Officer of 4-D Neuroimaging (the "Company") hereby certifies, to the best of his knowledge on the date hereof, that the annual report on Form 10-KSB for the fiscal year ended September 30, 2003 (the "Form 10-KSB"), filed concurrently herewith by the Company, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that the information contained in the Form 10-KSB fairly presents, in all material respects, the Company's financial condition at the end of such fiscal year and the Company's results of operations for such fiscal year.

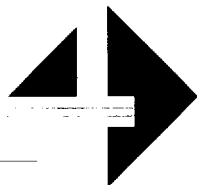
/s/ D. Scott Buchanan

D. Scott Buchanan

Chief Executive Officer and Principal Financial Officer

Dated: December 19, 2003

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## Board of Directors

Martin P. Egli  
Chairman of the Board  
Senior Partner, Swisspartners Investment  
Network AG,  
an investment management company

D. Scott Buchanan, Ph.D.  
President, Chief Executive Officer  
Principal Financial Officer

Galleon Graetz, M.D.  
Senior Partner, Care Net AG,  
a health consulting company

Martin Velasco  
Director, Telefonica  
Owner, Scaloway

Hans-Ueli Rihs  
Director, Phonak Ltd.,  
a hearing instruments and systems business

## Officers

D. Scott Buchanan, Ph.D.  
President, Chief Executive Officer  
Principal Financial Officer

Eugene C. Hirschkoff, Ph.D., J.D.  
Vice President, Engineering  
Corporate Secretary

Kenneth C. Squires, Ph.D.  
Vice President, Marketing

## Corporate Headquarters

4-D Neuroimaging  
9727 Pacific Heights Blvd.  
San Diego, CA 92121  
(858) 453-6300

## Shareholder Information

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3811 Valley Centre Drive  
2nd Floor  
San Diego, CA 92130-3318  
(858) 720-3551

Accountants  
Swenson Advisors, LLP  
401 B Street, Suite 2102  
San Diego, CA 92101  
(619) 237-3400

Transfer Agent  
American Stock Transfer & Trust  
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Brooklyn, NY 11219  
(718) 921-8360

Investor Relations  
4-D Neuroimaging  
(858)-458-5701

Website  
[www.4dneuroimaging.com](http://www.4dneuroimaging.com)

Annual Shareholder's Meeting  
Friday March 26, 2004

4-D Neuroimaging  
9727 Pacific Heights Blvd.  
San Diego, CA 92121



**4•D | NEUROIMAGING**

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